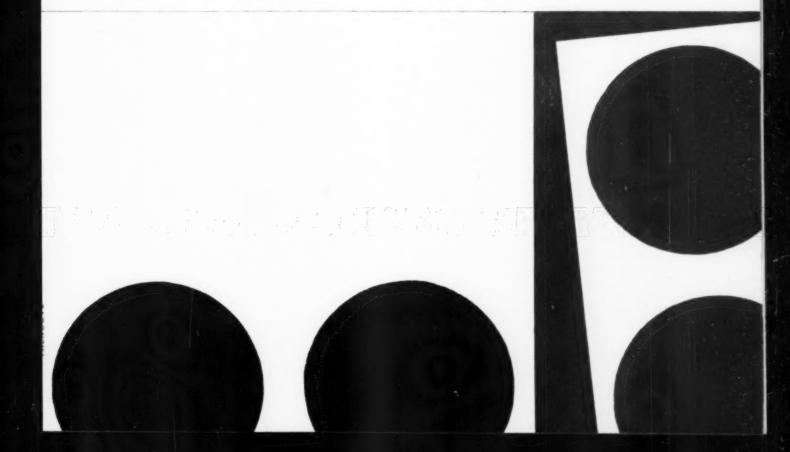
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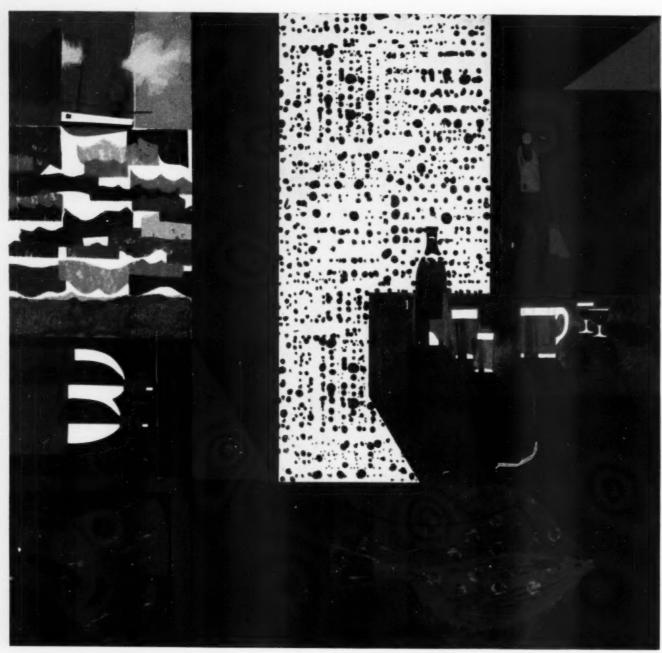
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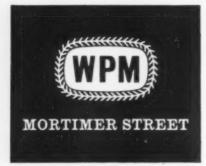
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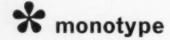




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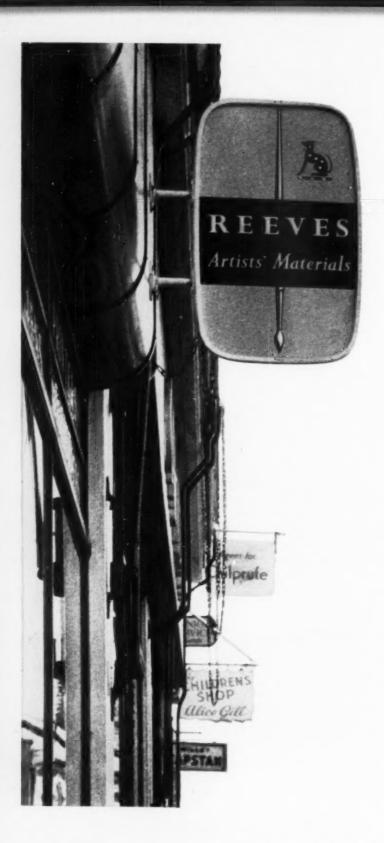






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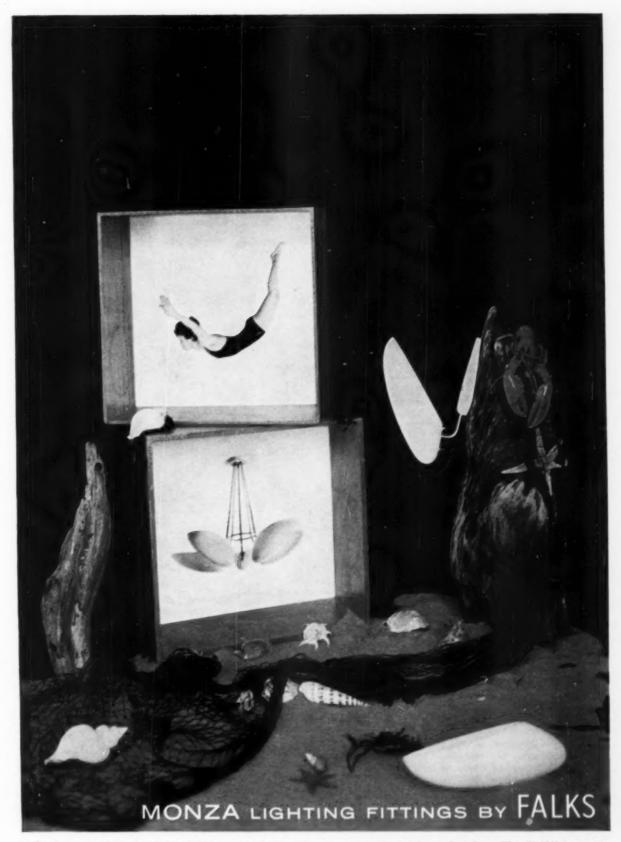
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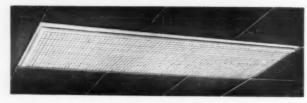
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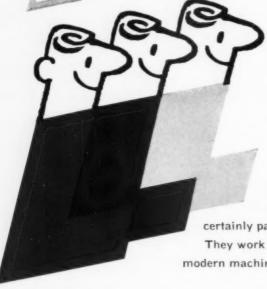
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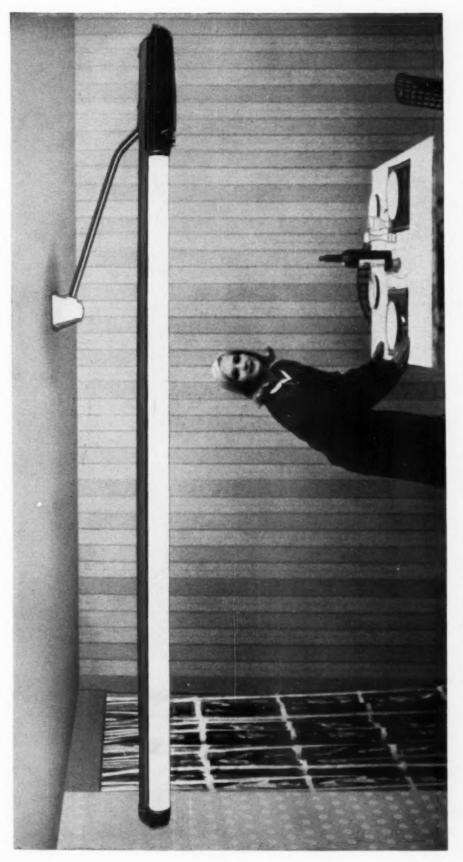
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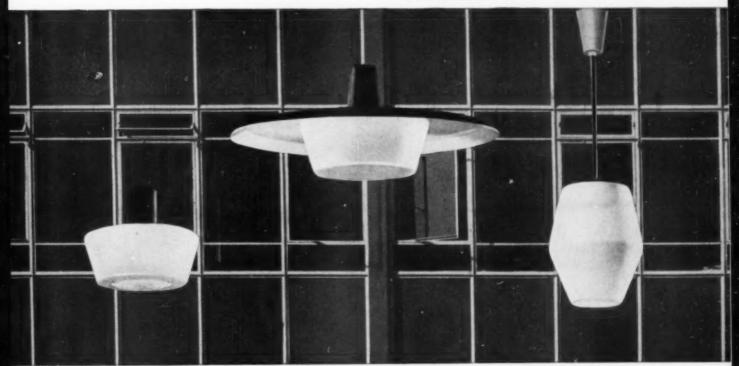
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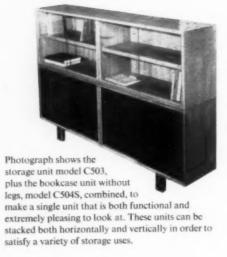


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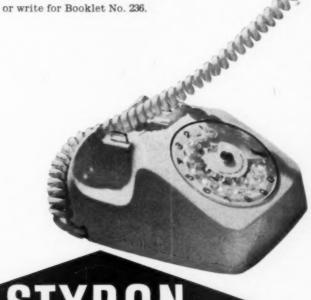
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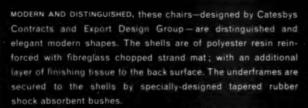
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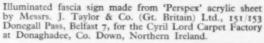
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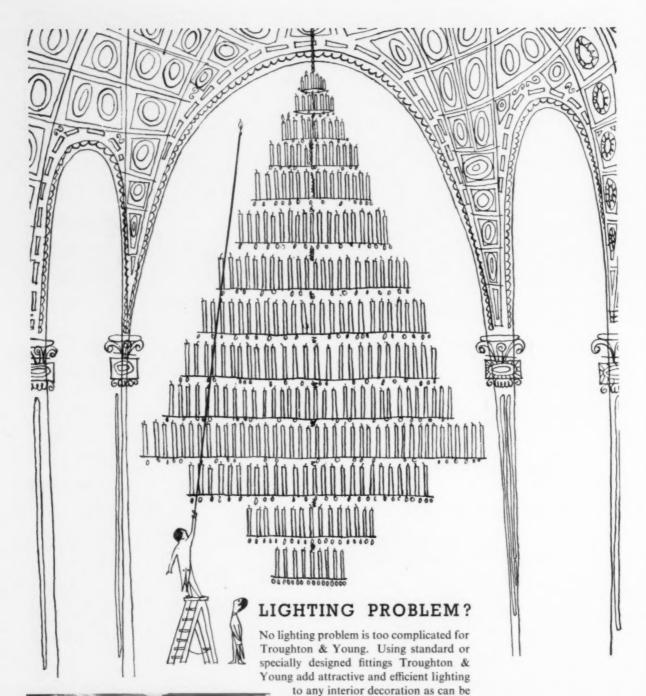






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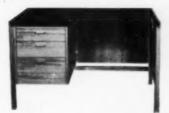
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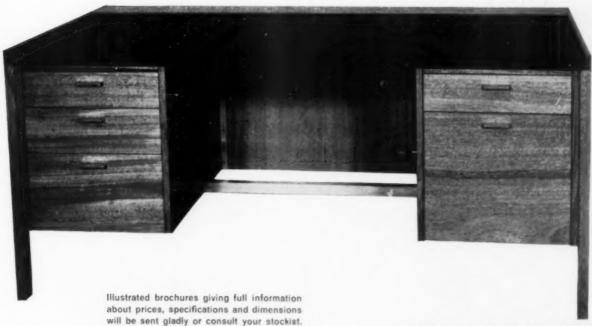
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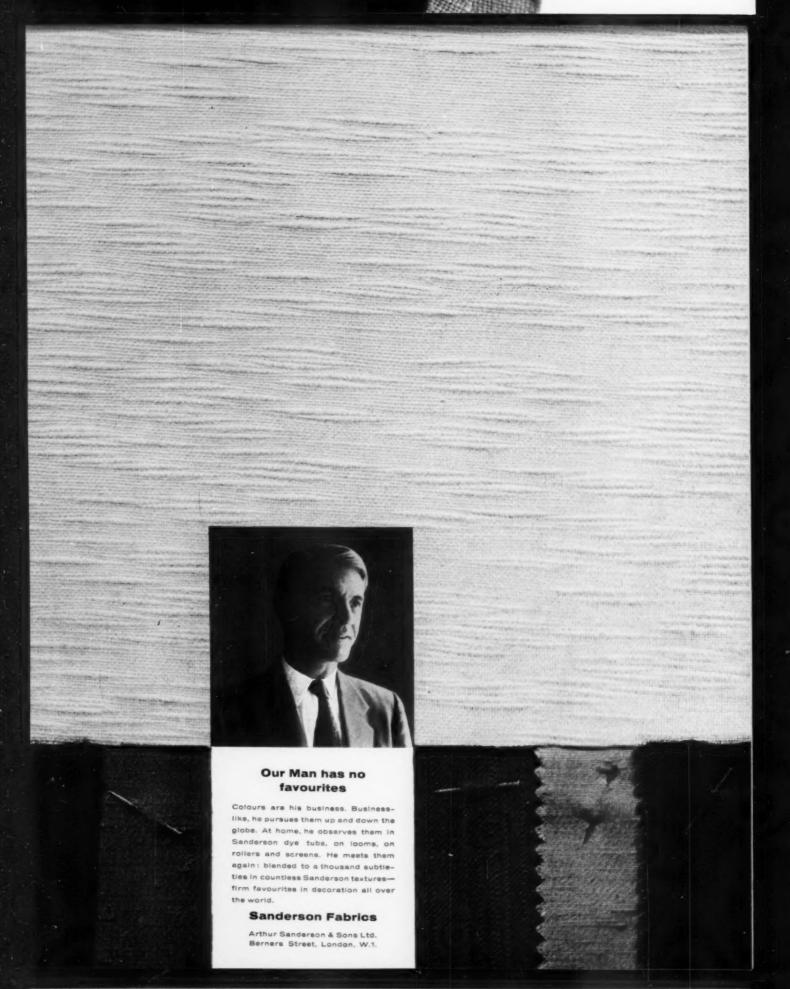
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Who pays the piper

This month the CoID is holding its third International Design Congress when distinguished speakers and delegates from the United Kingdom and overseas will debate the value of a design policy for those who buy, build or otherwise commission design on a large scale. The first congress in 1951 was concerned with the need for a design policy for manufacturers; the second in 1956, investigated the management of a design policy within industry. Now the CoID is inviting bulk purchasers, the most influential customers of industry, to consider the part they play in establishing and maintaining design standards in the home and export market.

A local authority may spend in one year over £1 million on furniture alone, and this can be matched by the great commercial combines, transport undertakings and public institutions. Orders of this magnitude are probably more effective in making manufacturers sit up and take notice than any wise counsel or enlightened persuasion; for in this context, as much as any other, whoever pays the piper calls the tune. The trouble is that in many cases the tune is so discordant. Furnishings and equipment and literature, which should be co-ordinated, are often chosen by different people within the same organisation, each with a different design standard in mind.

An enterprising board of directors may commission a new office block from a first rate architect, only to find on the opening day that the selection by others of furniture and fittings is a complete contradiction of the standard of architecture. Or a ministry will do all the right things to obtain a well designed airport, completely furnished to the last detail of lettering and sign posts, yet within two years the accretion of subsequent paraphernalia by those responsible for its management and maintenance may turn the place into a design bedlam. The devastating aspect is that it may be nobody's fault; if it were, somebody could be made to put it right. But at present no one is likely to be completely responsible, and in most cases nobody will really care sufficiently to stop the rot.

The CoID congress will examine how a design policy in contract buying in all its aspects from architecture to ashtrays, can be used to make management more efficient, to improve the environment of staff and the public, to simplify maintenance and generally to enhance the reputation of these organisations which play such a prominent part in the nation's affairs. And, by no means least, the congress will draw attention to the enormous influence for the good that wise, large scale purchasing should have on the standards of design in manufacturing industry.

J.N.W.

POINTERS FOR THE CONGRESS

On October 4 and 5, the CoID's 1961 International Design Congress on the theme Design Policy for Corporate Buying draws together at the Royal Society of Arts an international group of heads of large organisations, government officials, industrialists, and designers. The congress will consider the implications of large scale purchasing and demonstrate that a sound design policy in corporate buying is a key factor in building a successful organisation, resulting in improved sales, better working conditions and increased efficiency. The backgrounds of seven speakers, and the diversity of interests they represent, are discussed in this feature.



W. D. Lacey, Nottinghamshire county architect. Elected an ARIBA in 1945, and awarded RIBA Bronze Medal for Tuxford Secondary Modern School. His CLASP school won the Gran Premio con menzione speciale at the Milan Triennale of 1960. From 1946-55 he was assistant architect to Hertfordshire County Council, before becoming Nottinghamshire's assistant county architect. His paper will deal with the CLASP system of prefabricated components, with emphasis on the actual system of construction and its characteristics.



Søren Hansen, Denmark, managing director, Fritz Hansens Eft A/S. Served apprenticeship as cabinet maker from 1921-25, and until joining Fritz Hansens Eft in 1928 underwent professional and commercial training abroad. In 1933, he became co-owner of Fritz Hansens Eft. which he now manages with his brother. He was elected chairman of the Danish Society of Arts and Crafts in 1957, leaving in 1958 when he took over the chairmanship of the Permanent Exhibition of Danish Arts and Crafts. Mr. Hansen's paper discusses the privileges and responsibilities inherent in corporate buying and selling, particularly in so far as it affects building planning. It is, says Mr Hansen, "a privilege with responsibilities".



T. H. Summerson, chairman, BTC Design Panel and of its North Eastern Area Board. High Sheriff of County Durham from 1953-54. A member of the ITA from 1957-60, and of Aycliffe New Town Development Corporation since 1947, Mr Summerson is now deputy president of the Association of British Chambers of Commerce. He will talk about the organisation of design in a large undertaking such as the British Transport Commission, whose Design Panel was inaugurated in 1956.



Eliot Noyes, USA, consultant designer. Graduated from Harvard in 1932, and from Harvard School of Architecture in 1938. After graduation worked in the office of Gropius and Breuer, and was then appointed director of the Department of Industrial Design at the New York Museum of Modern Art. Subsequently he worked with Norman Bel Geddes before leaving to open his own office for the practice of both architecture and industrial design, and also at this time was appointed critic in architectural design at Yale. Mr Noves' paper will describe the handling of his comprehensive design programme for IBM, whose consultant director of design he has been for six years; he will also discuss the similar but newer programme he is conducting for Westinghouse. He will suggest several basic rules for making such schemes practicable.



Sir John Cockroft, Master, Churchill College, Cambridge. Studied mathematics at Manchester University from 1914-15, and after the first World War returned to Manchester to study electrical engineering at the College of Technology. After two years of apprenticeship with Metropolitan-Vickers Electrical Co he went to Cambridge, and after graduating worked under Lord Rutherford at the Cavendish Laboratories. In 1929 he was elected to a fellowship at St John's College, Cambridge, and in 1939 he became Jacksonian Professor of Natural History. After a war time appointment as assistant director of scientific research in the Ministry of Supply, he became head of the Air Defence Research and Development Council, and in 1946 was appointed director of the Atomic Energy Research Establishment, Harwell. From 1954-59 he was scientific research member of the UK Atomic Energy Authority. Sir John's paper will deal with the design policy of Churchill College, with particu' " attention to the delegation of responsibility for the work and to the effects of an integrated design policy.



Raymond Loewy, USA, industrial designer. Graduated in engineering at the Ecole de Lanneau, Paris, and became fashion illustrator to Vogue and Harper's Bazaar in 1919 and art director of Westinghouse Electric Co in 1929, in which year he formed his own industrial design organisation. He became head of Raymond Loewy Associates in 1945, and has been its president since 1957. He was elected chairman of the board of Raymond Loewy Corp in 1945. Mr Loewy was elected an honorary RDI in 1937. He became vice president of the French Chamber of Commerce of the USA in 1958. His publications include The Locomotive - its Esthetics, and an autobiography, Never Leave Well Enough Alone. Mr Loewy's paper covers the case history of the design of the Douglas DC8 for United Air Lines, which represented a breakthrough in the interior design of jet aircraft.



Toby E. Rodes, Switzerland, European representative of Knoll International Ltd, New York. Educated in Germany, Switzerland, England and USA, specialising in international finance and law. From 1940-42, and again after the war, he was engaged in international trade in New York, travelling extensively in Europe until 1950, when he accepted a temporary appointment in the US Diplomatic Corps as a Marshall Plan official. He joined Knoll International Ltd in 1955. Mr Rodes will speak on the influence of the corporate customer on design, from the basis of his experience with the Knoll International group.

Other speakers at the congress:

Sir Harry Pilkington, chairman, Pilkington Bros;
R. Dinnage, manager and secretary, Co-operative Insurance Society;

Society;
Donald Gibson, director-general of works, War Office;
Sir Colin Anderson, director, P & O – Orient Lines;
A. H. Milward, chief executive, BEA;
W. A. Tatton Brown, chief architect, MoH;
Habert Banest, chief excluder, CC;

Hubert Bennett, chief architect, L.C.C; Gio Ponti, Italy, architect; Eric Bedford, chief architect, MoW;

Sir William Holford, president, RIBA;

Emmanuel Gran, U.S.A, director of architecture and interior design, Hilton Hotels International;

Professor Misha Black, Design Research Unit, member of Council, CoID;

Richard Sheppard, architect, Richard Sheppard Robson & Partners;

Professor R. Llewelyn Davies, professor of architecture, University College, London;

Alastair Morton, director, Edinburgh Weavers, member of Council, CoID;

Sir Gordon Russell, director, Gordon Russell Ltd, member of Council, CoID;

Sam Jerrett, director, British Pottery Manufacturers' Federation; Peter Inchbald, managing director, Walker & Hall Ltd, member of Council, CoID;

John Murray, director, T. Bond Worth Ltd; Lealie Julius, works director, S. Hille & Co Ltd.

SSS SIR

The recent Soviet Exhibition at Earls Court provided a rare opportunity for the ordinary British citizen to see something of life in the USSR. Few are fortunate enough to have travelled to the Soviet Union and not everyone was able to visit the Brussels exhibition two years ago when the Russian pavilion provided the West with a first look at Soviet achievement since the war.

What were the objectives of the Russian designers at the Earls Court exhibition? And how far did they succeed? According to an information sheet, the exhibition had a dual purpose: to demonstrate the potentialities for extending Anglo-Soviet trade, as well as to give a picture of the conditions in which the Soviet people work and live.

In the first article Lawrence Alloway, author and critic, considers the second of these objectives and discusses the image of the USSR as a spectacle with a message. And interesting though this image was, it cannot be ignored that the Russians were violating an agreement between the two countries, for the mutual exchange of exhibitions between Moscow and London was intended to be confined strictly to trade and all propaganda was to be avoided.

Following this Fred Ashford, an industrial designer with wide experience of capital and consumer goods design, looks at the products displayed and argues that Russian manufacturers will have to improve quality finish and design if their goods are to be fully competitive with Western standards.

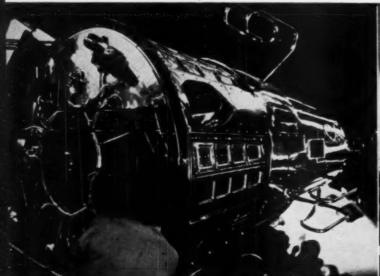


THE IMAGE

There were 10,000 or so exhibits at the Soviet Exhibition, covering 250,000 sq ft in a series of 22 halls, which radically transformed that tired old barn at Earls Court. On entering, the visitor was confronted by a colossal head of Lenin (see page 43), looming out of a white 'marble' block (in fact feather-light expanded plastics). At first this was reminiscent of the Russian pavilion at Brussels, in which the spectator was reduced to a capitalist speck at the foot of Russian might. At Earls Court, the quantity principle, as it could be called, appeared less as gargantuan statues and spaces than as profusion shading into confusion. The halls were crowded together, leaking into each other, so there was no respite, no breathing space. The packed anthology was nowhere simplified by a vista or a high-up vantage point from which the display could be seen as

one thing. The work of the Russian designers was garrulous, unremitting, corny, in a battery of signs, displays, models, artefacts, which had a cumulative weight far beyond their individual interest to the public.

The big show was spread out in ungraspable profusion which the old fashioned display methods presented confidently as the plenitude of a country which, as Nikita Khrushchev reminded visitors in a message to the exhibition, amounts to one sixth of the land mass of the world – one half of Europe and one third of Asia. In contrast the American pavilion at Brussels could be cited as an example of the successful containing of a mass of exhibits in a lucid space, so that the parts did not swamp the image of the whole. That the Soviet exhibit presented an eager and ruthless heap of



Alloway at the Summit?





goods may have been caused by a split that was detectable in the display between production and consumption values.

The rising level of consumption in the USSR was demonstrated clearly and repeatedly, but not entirely happily. Despite the fashion show, despite a modern flat hung over the model of a modern city, the exhibition repeatedly failed to give a convincing image of the leisure in which the benefits of consumption are enjoyed. The effort involved in the remarkable expansion of the Soviet economy since Tsarist Russia has raised the standard of living and increased the power of the country, but, as consumers, the Russians are naïve. The statistics which sanction many of the displays pointed this up. Not only were there too many statistics, too many of them were extrapolated into the future, so that the

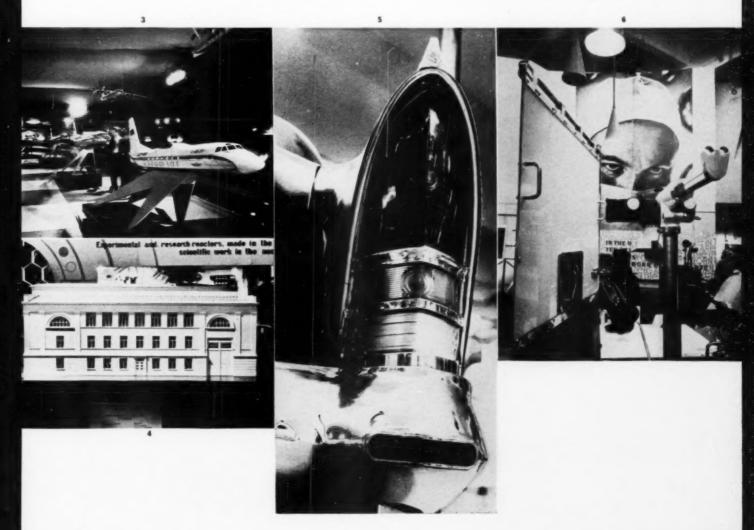
1 Hardware for outer space. In the Hall of the Cosmos, English visitors could inspect the shimmering, highlit external surfaces of Soviet rocketry.

2 A room with a view and a shelter for young (Russian) moderns. For the descendants of the nostalgic worker couple, a nondescript internationalstyle flat floats over a model city of the future.

3 A perspective of jets along a ramp establishes a canon of streamline echoed in the styling of land-bound forms elsewhere in the exhibition (the car tail fin, **5**, for example).

4 Neo-classic propriety screens the first Russian atomic power station: the present is dignified by naive revivalism.

6 Domineering display techniques characterised the whole exhibition. Semantic note: in the USSR 'citizens' are born, not 'babies'.



USSR AT EARLS COURT

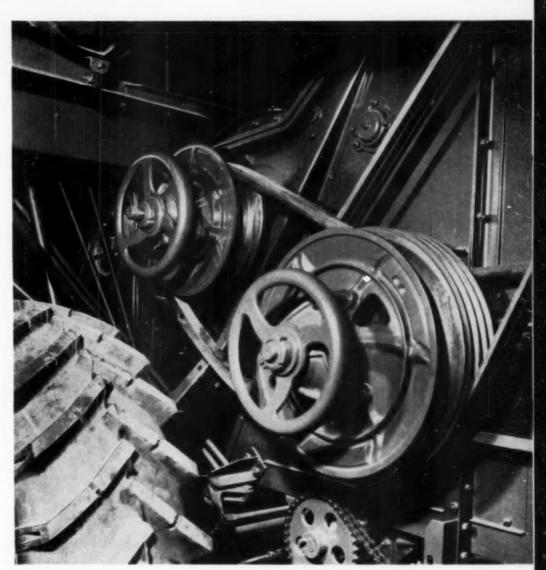
highest point of the graph was an aim and not yet a fact. This was particularly noticeable in the agricultural section, but it was standard practice throughout the show: all graphs pointed UP. The statistics, of course, all referred to national figures. Where individual Russians appeared in the displays they, too, seemed average symbols of production capacity rather than of typical consumption. They appeared as the means of increased productivity and educational improvement, rarely in terms of, say, the increased power available to an individual, or of his place in an expanding universe of shops. Production values were celebrated with a confidence missing from the themes of personal consumption.

The result is that the Soviet Exhibition presented a split picture of the Soviet people, one in which the imagery was unadjusted to present reality. A comparison of the 'culture' section with the rest of the show will clarify this. It consisted of out-of-date images of heroic workers and patriotic mothers, painted at a time when soldiers did shoot workers in the street and German officers did take hostages. The athletic and devoted cast of these paintings and, of course, the onwards and upwards sculpture of the revolutionary couple (him in a vest flourishing a sickle), dates from the revolutionary phase of communism. The rest of the exhibition, however, belongs to a phase of trade and co-existence. The exhibition shows the worker in the vest putting on a suit, but having trouble picking up a telephone with a sickle in his hand.

The possession of consumer goods is not the only blessing and benefit of peace, but it is peace's infallible index. Consumer goods are not only production targets, they are the fabric of an industrialised country, any industrialised country, at peace, once the survival stage is passed. The entertainment, the styling that goes with mass produced consumer goods is a part of their value and function. The Russians, however, by denying themselves sophistication, just as they eschew advertising, reduced the fruits of peace to an oppressive pile of hardware in a bower of statistics.



- 7 A version of the famous worker couple was a carry-over of an early heroic image of Revolution. But where was the image of the Russian consumer at mid-century?
- 8 Although the subject matter is up to date the slimily executed spacerocket sculpture is not so very different in mood from the corny mantelpiece ornament behind it.



9 Detail of a self-propelled grain combine harvester. This is an example of the extreme complexity of some Soviet engineering design. A huge porcupine of a machine, it bristles with externally mounted auxiliary power units and transmissions, and has many exposed drives requiring about half a dozen different sizes of ver-belt.

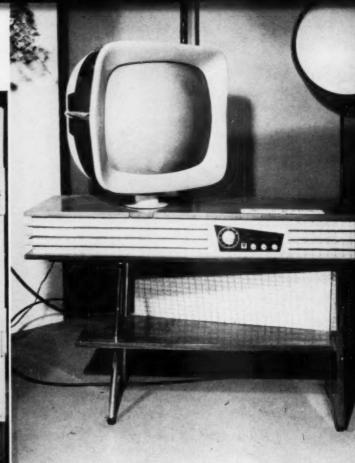
USSR AT EARLS COURT

PRODUCTS

Nikita Krushchev's message to visitors to this exhibition called upon all countries to compete in the improvement of their peoples' living and cultural standards. Without questioning the sincerity of this appeal, it did seem strangely ingenuous when considered against the background of the assembly of undistinguished products at Earls Court. Only a sturdy sense of objectivity and determination to give credit where it was due prevented the visitor from being less than fair about this chaotic collection of poorly designed and, on the whole, badly produced articles.

Viewing it as a designer, uninfluenced, I hope, by politics of any hue, I was conscious of a feeling of great disappointment that in having cut away from the past and eschewed all tradition, the Russians, in their greatest of all social experiments, had failed to produce anything yet discernible as a coherent, contemporary





Photographs on pages 47-49 are by Sam Lambert

style. In the absence of such a style, clearly identifiable in many other countries and well demonstrated at such exhibitions as the *Triennale*, we saw fumbling eclecticism, tame derivation, the uninformed use of isolated features of design – usually the least endearing – of capitalist origin and, in the main, plain, straightforward dreariness.

There were few bright spots to illuminate this rather sombre scene and suggest that we might still be presented with some new vision, some new approach to visual problems unhampered by deference to the past.

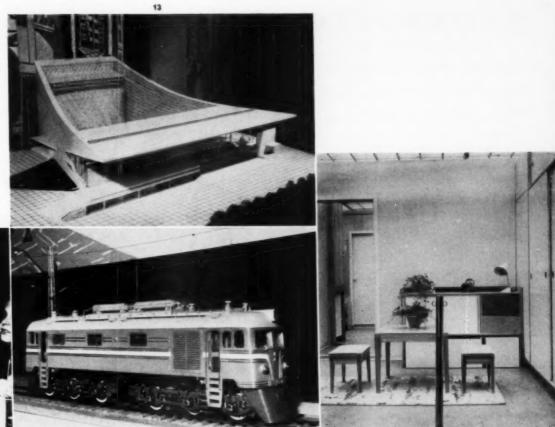
There are some obvious potential reasons for this failure, although there is no means of knowing to what extent any of them is responsible. There has been, up till now, the complete absence of the spur of competition, either domestic or international. There is still clearly a considerable lack of experience in some manufacturing processes, particularly those influencing the finish and quality of products. There is a suggestion of deliberate economic policies encouraging, or permitting, only minimal standards of appearance. There appears to be a large measure of indifference to user-comfort, both physiological and psychological; although, as if to confound this view, seats on tractors and agricultural machines seemed to offer more substantial comfort than do their British or

American counterparts.

In general, however, the Soviet problem seems to be concerned more with people than with plant or processes, and it seems doubtful whether the "yes, but look at the magnitude of their achievement" defence is still valid so far as the visual quality of their products is concerned. Engineering industries with quantity-production facilities have existed for some years in the Soviet Union, and once you have those, the visual quality of products depends very largely upon the physical shapes of dies and moulds; in short, upon design, with all that it implies in planning and detailing to achieve the best reflection of current thinking. Examples of engineering design like the control console of a weld-testing machine, date-marked 1959, 10, but which looked like a pre-revolutionary scientific relic, were just baffling to the Western eye. The crudity of manufacture and finish, and the 'brutalist' treatment of detail had to be seen to be believed.

Yet there were a few exhibits in the form of machines, optical equipment and buildings, which were very good indeed. Here, it seemed, was honest, original design which had arisen from each particular set of requirements, without reference sideways – or over the shoulder – to what the rest of the world is doing. The image of stolid artisans standing shoulder-to-shoulder dissolved into one of





intelligent, creative individuals; the same kind of fellow designer you might meet in Milan or New York.

It is possible that we are witnessing the fag-end of an era in which, apart from any economic stringency, the overriding attribute of a designer was good partymanship rather than real professional competence. The recent appointment of Y.B. Soloviev, the designer of the atomic-powered icebreaker (DESIGN 111/31), as co-ordinator of industrial design and research, and organiser design education, can only result in an increase in the number of able, and effective, Soviet designers. While the task of satisfying Russia's domestic markets remains immense, it seems clear that in some fields, for example machine tools and other forms of capital equipment, she is looking beyond the iron curtain. Were the Russians to pursue a policy of external trading in capital and durable consumer goods with the same single-mindedness of purpose with which they have ventured into space, the effect upon our own economy could clearly be considerable.

What was shown at Earls Court is unlikely to cause British manufacturers to lose a great deal of sleep in the next year or two, but there was unmistakable evidence that this state of affairs is unlikely to remain permanent. To dismiss this rather disappointing exhibition with contempt could be a great mistake.

10 Instrument panel of a control console associated with a weld-testing machine. Date-marked 1959, yet evocative of early electrical equipment in museums, each component is mounted slightly askew, with switches designed for vertical presentation laid on their sides, together with their designations.

11 Ukraina television receiver. While the treatment of the tube is not unpleasant its association with the modernistic layer-cake below is incongruous. It is clearly, derived from an earlier Italian receiver (DESIGN 100/42).

12 An unusual form of reflecting telescope offering three powers of magnification - x25, x50 & x100. It was far superior in design and finish to the bulk of equipment exhibited.

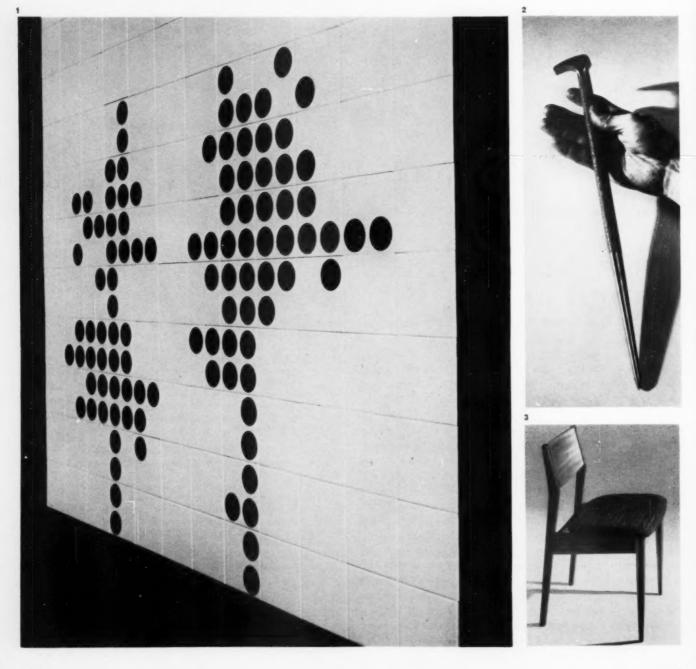
13 Model of a cinema to seat 4000 to be built in October Square, Moscow. A delightfully clean and satisfying design: the soaring canopy supported by tensioned roof members presents an interesting side-elevation and an imposing yet dignified front entrance.

14 A model of a dc electric freight locomotive. It has some basically sound forms, but these have been obscured by Detroit-type chromium flashing. An opportunity for a clean and impressive front end presented by this large gauge, central coupled locomotive has been missed by the designers.

15 Children's playroom in a model flat. The furniture was notable for its simplicity and restraint, though detailing was poor. Together with several other exhibits, it is perhaps more important as a pointer, for it indicates a more liberal and cosmopolitan outlook than we have previously ascribed to Soviet designers.

REVIEW OF CURRENT DESIGN

A selection of items recently accepted for 'Design Index', the CoID's photographic and sample record of current well designed British goods. 'Design Index' forms an essential part of The Design Centre, 28 Haymarket, SW_I , which is open on weekdays from 9.30 am -5.30 pm, and on each Wednesday and Thursday until 9 pm.



1 Silk screen printed ceramic tiles (model *Spot Series SK 100-104*), glazed, and available in glossy or eggshell finish, in red or black. Tiles available with one to four spots, including tile with two diagonal spots, thus giving a simple and flexible pattern. $6 \times 6 \times \frac{1}{4}$ or $6 \times 6 \times \frac{1}{4}$ inches. Designer *Malcolm Partridge*. MAKER *Pilkington's Tiles Ltd. Price from builders' merchants*.

2 Pry bar (model 219) of chrome alloy steel with polished ends and red enamelled shank. Pry end has polished faces and correct cam profile. Pointed end is polished and uniformly tapered over 5½ inches. Length 16½ inches; weight 1 lb. Maker Britool Ltd. £1 6s 3d per pair.

3 Chair (model Rimington) of teak, in lacquered finish. Saddle seat is polyether padded (chair can also be supplied with upholstered back panel). Seat height 18 inches; width 18 inches; depth 15 inches. DESIGNER Arthur Edwards. MAKER White & Newton Ltd. £7 19s 6d (panel back), £8 15s (upholstered back).

4 Low back chair and adjustable stool (models Kyoto 30 and Kyoto 36), with frames of afrormosia in an oiled finish; Pirelli webbing with birch or beech ply and Swedish hardboard; Dunlop polyether foam cushions with removable, washable Irish linen covers. Other covers available. Seat height 15 inches; depth 21 inches. Stool height 13 inches nominal. DESIGNERS George Féjèr and Eric

Pamphilon. MAKER Guy Rogers Ltd. From £ 137s 6d (chair), £6 2s 6d (stool).

5 Electric shaver (model *Philishave type 7860*) with floating heads of silver steel and chrome steel which move independently up and down or tilt in any direction. Urea formaldehyde plastics housing in dark blue and white. $100/130 \, \mathrm{v}$ or $200/240 \, \mathrm{v}$, ac/dc. $3 \, \times \, 3\frac{1}{2} \, \times \, 1\frac{1}{2}$ inches. Maker *Philips Electrical Ltd.* £8 8s.

6 Table lamp (model 100T/2) of high impact polystyrene, with legs of oiled teak. 'Orange peel' texture is available in a variety of one or two tone finishes. Height 18 inches; diameter (including legs) 9 inches. Designer Bernard Samf. MAKER Lorra Lite Ltd. £2 5s.

7 Lever door handle (models Rhinegold 8002, non-locking, and Rhinegold 8004, locking), available in zinc alloy, brass, bronze or nickel bronze, in a variety of finishes. $3\frac{1}{8} \times 1\frac{1}{8}$ inches; length of grip $4\frac{1}{8}$ inches (locking), $4\frac{1}{8}$ inches (non-locking). MAKER Bloore and Piller Ltd. 18s per pair (non-locking handles) £ 1 is per pair (locking handles).

8 Spiked carving dish (model C110/S) of stainless steel, in satin finish with polished flange. Dish has two vegetable sections and a gravy well; meat platform sloped at 3° to allow gravy to run into well. Length 15 inches; width 13 inches. Designer George Ross, MAKER Goodwood Metalcraft Ltd. £, 5.5s.

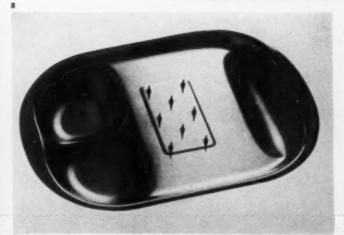












SEATING THE DRIVER

DONALD ANDERSON & MALCOLM J. BROOKES

An investigation into seating arrangements and control layouts of cars

John Garner



There are several aspects of safety in cars. One deals with the structure, packaging, de-lethalising and exterior design, and another the various factors which affect the driver's concentration and action - such as visibility, noise, vibration and seating. The scope of this article in general is limited to these latter human factors and, in particular, to seating arrangements and control layouts.

The main ways in which the driver receives information – visible, auditory and tactile – and the ways in which he acts – by steering, braking and accelerating – are necessarily governed by the vehicle design; pillars, bonnet, roof, windscreen and side lights all limit his visibility forward; likewise, say, the type of steering box and suspension geometry limit his 'feel' of roadholding. Each of these points is, of course, obvious, but the extent to which any of the vehicle parameters contributes to or detracts from the driving task is not so easily assessed. Taken individually it is possible to determine the increased difficulty in carrying out a task with, for example, restricted vision or with various ambient noise levels. Much research has been done on these types of effect on human beings.

But the argument developed in the following pages is that, within limits, any one vehicle limitation is not all that much more important than another, for the effects on the driver of an uncomfortable seat, restricted visibility, high ambient noise, extremes of temperature, vibration and high expenditure of physical energy when summated together may well be considerable. Our aim in labouring this point is to stress that it is hardly sufficient to claim that visibility or comfort or noise are 'good enough' or 'sufficient' or 'reasonable', if objective measurements are capable of accurately indicating the degree of distraction due to each, and hence the total effect of the whole. Even further, while it can be said that we can get used to these 'slight discomforts', human adaptation does not diminish the combined effects.

Designing for safety and comfort

Within the confines of this article it was not possible to tackle the task of defining the degree of driver distraction due, say, to an uncomfortable seat. The aim behind this investigation was basically simple: with certain given cars, to compare certain dimensions to see how and where they differ. A superficial examination showed how closely linked are the various vehicle parameters.

For this investigation, then, we have made the assumption that in a motor vehicle, seating and control layouts should be designed for optimum safety and comfort. A break down of some possible criteria affecting these two aspects of the design includes:

safety:

- (a) visibility forward and rearwards;
- (b) reach and logical positioning of all hand and foot controls;
- (c) freedom of movement;
- (d) force to operate controls;

comfort:

- (a) trunk, head and limb angles;
- (b) trunk, thigh, back and head support;

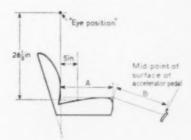
- (c) resilience of support surfaces;
- (d) freedom of movement.

It is not possible, of course, to draw distinct lines between the listed criteria of safety and comfort; eg, the force required to operate controls (as well as reach and positioning of them) will affect the comfort of the driver.

From these factors we have selected visibility for the starting point of our investigation since a driver must be able clearly to see the road in front (as well as know what is behind him by means of mirrors). Our assessment of vehicle design turns on those dimensions which directly affect visibility, such as height and adjustment of seat. Such dimensions are closely allied with reach and positioning of the essential controls – wheel, pedals, gear lever.

To verify the initial observation a search was made for any published literature relating to work space layout in vehicles. A great deal of information is available 1-14 in various forms which cover diverse aspects of seating, armoured fighting vehicles, car work space layouts, aircraft seating, effects of noise and vibration, and so on; and yet it is hardly to be wondered why this valuable information rarely reaches the car designer. In the main, it is written by scientists for scientists, and not designers. To find any useful snippets of data a designer has to learn a new jargon and discard perhaps as much as 80 per cent of a paper in his search for applicable facts. A co-ordinated reference library is needed, capable of regurgitating facts for easy assimilation. The Motor Industry Research Association would be the obvious choice for such a valuable service to motor vehicle designers.

But this is only a part of the problem. Certain papers which probably have a wide circulation in the motor industry (and which have been prepared by the industry itself) tend to avoid some awkward details. The diagram BELOW is taken from SMMT



Standard No 5¹, and highlights the difficulties of any measurements on car seatings. Firstly, simple errors arise due to lack of uniformity in the upholstery. Secondly it is not so easy to determine where a

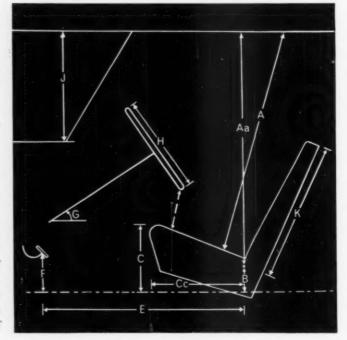
Dimensions of four cars compared

- clearance between compressed seat and roof along approximate line of body linches
- As vertical clearance between seat reference point (roughly where seat and back meet) and roof vertical distance between seat reference point and horizontal reference line; reference line is taken from a point on the floor below brake pedal and projected horizontally backwards
- vertical distance between horizontal reference line and top edge of uncompressed seat (inches) Ce depth of seat from front edge to seat reference point (inches)
- free vertical adjustment of seat (inches)
- clearance between seat reference point and brake pedal with seat forward (inches)
- free horizontal adjustment of seat (inches)
- height of centre of brake pedal above floor (inches
- G angle of steering column (degree)
- diameter of steering wheel (inches)
- minimum clearance between steering wheel and top of uncompressed seat linches
- vertical distance between lower edge of windscreen and part of roof above seat reference
- length of seat squab (inches)

driver sits on a bench seat, for example, particularly when the column of the steering wheel is angled away from the centre of the car. Finally, different seats have different seat and squab depressions for a given body weight and sitting angle. All these errors can be additive. No doubt rigid standards of measurement need to be determined, particularly when dealing with driver visibility. But how closely do the results from such standard tests ally with actual driving practice?

These same problems had to be faced for this survey. Most of the difficulties are minimised by tackling these main issues from a common starting point - seated eye height.

It is fair to claim that if a given population is to be catered for by a certain vehicle, then the driving position should be so designed that the majority of drivers can be accommodated in optimum comfort and safety. Using the above criterion of visibility, a driving seat should be designed to locate the driver's eyes in the area of optimum visibility. As some seated eye heights differ, then a vertical seat adjustment on a car is a necessity. The question of how much adjustment was arrived at by the Road Research Laboratories as long ago as 1952. The works is referred to in the discussion of a paper published by the Institution of Mechanical Engineers.² RRL surveyed 53 drivers "who were a fair sample of



For the reasons stated in the text some of these measurements are not claimed to be within a 5 per cent tolerance, but they are certainly accurate enough to give a very fair comparison between the cars. What is surprising is the very close agreement between dimensions, despite the vast difference in size of vehicle. Presumably there is a common code to which car manufacturers work, but we were unable to discover it. We have omitted any detailed discussion of optimum posture, as a great deal of work yet remains to be done on this subject. Such aspects as distribution of body weight over the buttocks and methods of assessing comfort are being studied by the Furniture Industry Research Association. But the currently held idea that comfort equals "sinking well down into the seat" is certainly questionable for, without adequate ventilation, this may encourage sweating of under thigh areas and promote discomfort.

| Dimension | Miniminor | Anglia | Cresta | SCH | Comments |
|-----------|-----------|--------|---------------------|---------------------|--|
| A | 371 | 371 | 36} | 371 | Depression of seat varies with weight, size and posture. At least 40 inches clearance recommended. |
| Aa | 361 | 354 | 37 | 37 | |
| В | 8 | 61 | 6) | 7 | Good heights: should provide optimum knee angle of 105"-110" if seat can be got far enough back. |
| C | 12 | 10 | 12 | 11 | |
| Cc | 18 | 17 | 18 | 19 | If posture of driver were good, these dimensions would be too great. |
| D | none | none | spacers to order | cushion to order | Recommended: 4 inches in 1-inch steps, |
| E | 32 | 31 | 31 | 32 | Fine for midgets with long backs. |
| Ee | 4) | 4 | 4 | 5 | Not enough: 6 inches in 1-inch steps recommended. |
| F | 7 | 61 | 6} | 6 | |
| G | 40° | 32 | 28° | 30° | Miniminor column rake demands an upright posture. |
| Н | 15? | 16 | 151 | 17 | Diameter depends on load: Rolls-Royce has power steering, so why the largest diameter wheel? |
| 1 | 6) | 61 | 51 | 54 | Sufficient for ease of ingress but is it best position for driving? |
| J | 15 | 15} | 16 | 16 | |
| K | 19 | 18 | 19 | 22 | What is more important than length is correct back support. Do human beings |

vary as much as the profiles suggest?





Morris Miniminor



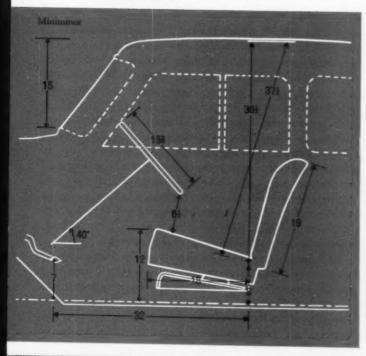
Ford Anglia

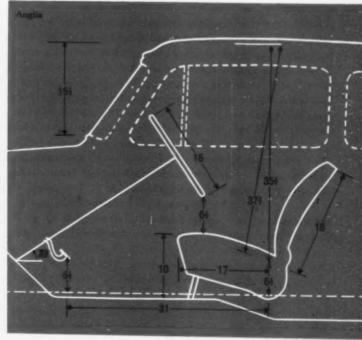


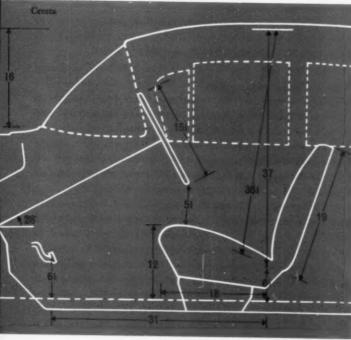
Vauxhall Cresta

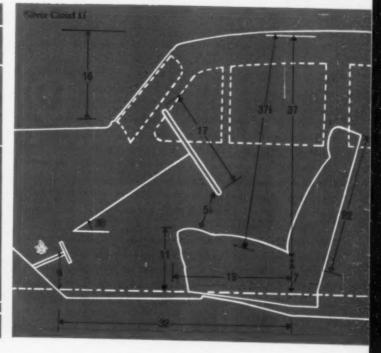


Rolls-Royce SCII









DESIGN 154

average height (ie, statistically selected to represent 95 per cent of drivers). They had seated the drivers in the driving seat of a vehicle and had measured their eye height from the depressed seat. It was found that the mean height of their eyes above the depressed seat was 27·7 inches, whereas the height according to the SMMT standard of that time was 32 inches". (The SMMT standard has since been revised, see diagram on page 53.) These same measurements showed that for about 95 per cent of drivers involved in the tests, eye heights lay roughly plus and minus 2 inches about the average position. This figure of 4 inches vertical movement is usually quoted as the minimum vertical seat height adjustment needed for a vehicle. None of the cars examined has such an adjustment (see table page 54).

But vertical adjustment is only part of the design necessities; the same reasoning can be applied to fore and aft movement. Only by studying valid anthropometric evidence can the optimum adjustments be determined.

Four cars compared

The four cars selected for this survey were Miniminor, Anglia, Cresta and Silver Cloud II and the design criteria were discussed with the makers, Morris Motors Ltd, Ford Motor Co Ltd, Vauxhall Motors Ltd and Rolls-Royce Ltd. Ford, as is widely known, uses manikins, Oscar and Oscarette, during the design of the driver's work space layout, Morris also uses a manikin, based on dimensions similar to Ford's but with a variant. As well as the manikin being pivoted at neck, shoulder and thigh on the trunk, the BMC model is pivoted also at the waist. This is certainly an improvement, but the disadvantages of using manikins has been discussed previously in DESIGN (135/38-42, 137/49-52 and 139/32). Vauxhall also uses a manikin, and the company also points out that the procedure for measuring seating dimensions is standardised throughout the whole of the General Motors Group. If this is so one wonders why the seat adjustments do not cater for the smallest Australian woman and the tallest American man (these dimensions covering also Germany and the UK) for presumably, there is an interchange of anthropometric information also.

Clearance from the top of the seat to the roof is of importance. Not enough clearance may force a tall driver to crouch over the wheel or cause him to strike his head on the roof when a sudden bump or jolt takes place. A minimum of 40½ inches is recommended – if the seat has vertical adjustment of 4 inches, then 40½ inches is measured from the lowest position. Dreyfuss suggests a clearance as much as 42 inches.

A glance at the table and diagrams on page 55 shows that neither

recommended clearance is met and no adjustment vertically, either up or down is provided. A feeble compromise is sometimes effected by mounting the seat runners at an angle so that with backwards movement the seat drops a trifle - which as well as lowering the seat may also alter the squab angle. But this hardly caters for the short-trunked, long-legged person - and it seems that limb dimensions vary more than trunk lengths. This argues both for the greater need for individual vertical and horizontal adjustments and for less addiction to 'average heights' for design dimensioning. In any case the seat rise is negligible compared with the collapse or settling of springs over a period of maybe five years' use. Ford's Anglia employs this type of limited lift, and to an even smaller extent BMC's Miniminor. Only by means of spacers inserted to order can the Vauxhall Cresta seat be raised. Rolls-Royce will provide an initial height to suit the customer. Only the Rolls-Royce had provision for adjustment of angle of back rest.

The fact that no vertical adjustment is provided to compensate for different eye heights means that shorter women drivers are in some cases not able to see much above the bottom edge of the windscreen without using a cushion, and the taller drivers may have to bend in order to see traffic signals or street names, etc. In order to cover the entire range including short women drivers and tall men drivers, some seven inches of movement would be required. However, we can probably accept that eye position may be varied plus and minus one and a half to two inches without seriously affecting visibility, so that at least four inches of adjustment, preferably in one inch steps, should be provided.

Pedal and column adjustments?

It is unfortunate that this adjustment itself can raise further problems. Clearance for the thighs between the seat and the steering wheel is at once reduced if the seat is raised, so that some adjustment of rake or length of the steering column would seem desirable, and also some adjustment of the pedals. It is believed that only one British car has in fact any adjustment on the pedals, the Sunbeam *Alpine*, and this to a very limited extent.

A further critical dimension in the layout of a driver's compartment is the distance from the top of the pedals to the underside of the steering wheel. This should be sufficient to allow the foot to be lifted on to the pedals to apply pressure. One published recommendation suggests a minimum of 24½ inches, with a preference for 26 inches. We found that the Cresta has this latter dimension, whilst the Anglia just about fulfils the former. The Miniminor falls short, while the Silver Cloud II complies.

To facilitate ingress and egress from a vehicle it is essential to





The motor car manufacturers sometimes argue that increased comfort in car seating can only be obtained at greater cost. Here is a car seat, far left, made by Microcell Ltd, whose design was based on physiological research. Although produced in small quantities it costs £13 10s for the Contour Six model. This compares with a seat of similar quality for, say, a Triumph Herald 1200 at £14. Another seat whose dimensions are based on physiological studies is LEFT, made by H. J. Mulliner, Park Ward Ltd. It was first produced to order in 1955 to fit Rolls-Royce cars. But the total comfort of the seat depends also on location of controls, particularly the steering wheel.

provide adequate clearance between the steering wheel and the seat back. It is equally necessary to prevent the wheel sticking in to the abdomen. The recommended dimension here is 15 inches, measured with the seat in its mid point of fore and aft travel. The cars selected were around 14 inches clearance.

Horizontal seat adjustment

To provide an optimum knee angle of about 110°, the range of the fore and aft seat adjustment which would accommodate both female and male drivers in America and the UK is in excess of 12 inches; however, the alteration of knee angle possible without much change in comfort reduces the necessity to provide all that adjustment. A minimum of 6 inches is to be recommended in 1inch steps, with the position of the nearest and farthest point determined experimentally. In the cars examined, an extra 2 inches adjustment was required rearwards. In all cases, of course, this is at the expense of the comfort of any passenger who is behind the driver, and if all persons are to be seated within the wheelbase this suggests the need for longer wheelbase cars with smaller boots. We believe that, from known anthropometric data, on all the cars the mid point of the seat adjustment was too far forward. Rolls-Royce was appreciative of this fact, but the company pointed out that, if the owner so desired, longer runners were available. Yet it seems a pity that car makers, conscious of every farthing spent, should waste money on putting seat runners in a car, the forward section of which will be used only by circus midgets.

One dimension which seemed to be satisfactory on the vehicles measured was the height of the seat above the floor—provided the seat could have been moved far enough to the rear. At around 10 inches, this is below the maximum recommended, and could provide a satisfactory knee angle of around 105-110°, which is considered to be optimum for operating brake and accelerator pedals.

A point which has frequently been commented on is worth repeating here. On the four cars measured, not one had pedals nearer to the floor than six inches. This makes it necessary to lift the foot on to the pedal each time the control is required, and can become very fatiguing on a long journey. Similarly, it seems common practice to mount the accelerator pedal so that from a normal cruising position of the throttle, the foot has to be lifted several inches towards the driver to move on to the brake pedal – movement which occupies valuable braking time.

So far we have avoided discussing the whole concept of driver's workspace layout and here there is room only to mention one major point. Besides the criterion of good forward visibility there is the need to know just how the driver is expected to act: other-

wise how can a true design solution be reached if the problem is not accurately defined? This raises such issues as if a driver has to turn a wheel against a certain force (in a Wolseley 15/50, for instance, it is high and in a power assisted Rolls-Royce it is low) then the required force for that action governs the steering wheel rake which in turn must govern the driver's posture, for the human frame is capable of exerting only a limited amount of force. Thus for a car which required high muscular effort to turn the steering wheel we would not expect the same driving posture as on another with, say, power assisted steering. The greater the necessary force the more the column would be upright and so the driver should assume a more upright posture. And yet the widely differing handling characteristics of these four vehicles is hardly reflected in the driver's seating position.

It seems from our investigation that there is a large number of problems which remains to be tackled by the motor industry. Too often does the industry abide by ad hoc solutions and it seems to neglect fundamental research into optimum seating and control positions. None of the four vehicles examined adequately caters for the great diversity of drivers' body dimensions. A logically directed research programme aimed at assessing comfort and safety from the users' angle is needed if these vital problems are to be satisfactorily solved.

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- ¹⁸ D. E. Broadbent, Noise: Its Effects on Behaviour, Royal Society of Health Journal, vol 75, no 8 August 1955.
- ¹⁴ Wilfred Taylor Dempster, Space Requirements for the Seated Operator, report WADCTR55-159, USAF Contract 18:6001-43, Anthropology Section of the Aero Space Medical Laboratory, Wright Air Development Division. (Copies obtainable from ASTIA Document Service Center, Knott Building, Dayton, Ohio.)





THE CASE FOR BULK PURCHASE

ARCHIE MONAB

The establishment of an efficient system of bulk purchase for hospitals would not only contribute to the economic running of the service. It could also provide much needed facilities for fundamental research into staff and patient requirements, as well as an opportunity to control quality and design standards.

However, as the first article in this series pointed out (DESIGN 152/42-49), there is no firm buying policy as far as hospital equipment and fittings are concerned. Supply systems vary between central purchase by the Ministry of Health and local purchase by individual hospital authorities, plus a variety of schemes operating within these two extremes. The important word is 'firm', for an all too flexible pinch-penny method of contract buying has been established in the hospital service for a number of years. Purchasing on behalf of the National Health Service is essentially a national responsibility, but the fact that there are 433 hospital authorities contained within 15 regional boards means that there are at least 15 (and probably many more) standards applied to equipment and the techniques of supply, purchase and administration. The situation may in fact be more serious, and fragmentation at local level occasionally produces as many buying policies as there are departments.

This concept of independence may have been of value originally, but during the years since the establishment of the National Health Service, increased expenditure has been enough to set the ministry thinking again about its policy on supplies. It has been reckoned that the annual running costs of a hospital are as much as one-sixth of the capital cost.¹ Put another way, 25 per cent of a hospital's total expenditure goes on consumables. These are high proportions, and it has long been thought that the introduction of systems of bulk ordering might go some way towards reducing cost. As far back as 1948, when the ministry empowered hospital management committees to acquire and maintain equipment, furniture and supplies, they were also asked to comment on future methods of purchase in the context of proposed ministerial arrangements for the central purchase of particular items.

During the following few years a limited number of joint con-

1 The Influence of Administrative Casts on Design, J. K. Johnston, The Architects' Journal, July 7, 1960.

tracting schemes was started, but supplies were still dealt with largely at group or individual hospital level – and in many cases still are. In view of this a committee, under the chairmanship of Sir Frederick Messer, was set up to "investigate and report on the organisation of all forms of hospital supplies, including their purchase, storage and issue throughout the National Health Service". The committee examined the current arrangements for the buying of hospital supplies – 'central contracting' (by the Ministry of Health), 'joint contracting' (by an association of hospital groups), 'group contracting' (by a single hospital group), and 'hospital buying' (by individual hospitals) – and accepted that whatever the extent of joint contracting arrangements, there would always remain items more sensibly bought at group or hospital level.

The Messer committee's report, published in 1957,² concluded that group purchasing by association between hospital management committees, backed up by the regional boards, could produce results. It would provide the only practical method of combining the advantages of large scale buying with the continued autonomy of hospital groups, without the further imposition of central purchase at ministry level. However, the whole trouble with these findings, which largely endorsed what had become the status quo, is that they mean all things to all men. The report can be, and indeed has been, made to support any side in the arguments for and against bulk purchasing.

In terms of money, out of a total maintenance budget of about £450 million, supplies account for over £100 million. This is divided roughly between food (£40 million), and central supply (£12-£15 million), leaving £50 million still directly in the hands of local hospital authorities. The Minister of Health is responsible for every penny spent, but cannot dictate what should or should not be bought by hospitals. Central contracting is not employed unless it is clearly economic and brings cheaper prices to the majority of hospital authorities, or where the minister considers better value for money can be achieved.

However, in spite of ministry encouragement to management committees to band together (and they are constantly reminded

The case for bulk purchase in the hospital service is summed up by the contrast of the pictures on the opposite page. Such a policy, the author argues in this second article of the series, would not only cut costs, but would help to create the new design standards that are urgently needed in the hospital environment. A greater degree of standardisation would inevitably follow, but opportunities would also be provided for much needed research into user requirements.

² The Final Report of the Committee on Hospital Supplies, HMSO, 3s 6d. See also MoH Circular HM (58) 94.

that this is policy, even if it is nebulous), joint contracting still meets with opposition. If it is looked on at all favourably, it is regarded as a money saving device and little else. It seems, however, to be agreed in principle that such schemes also have virtues where quality is concerned. Most authorities would concede that commodities such as food and drugs are suited to joint contracting (subject to limiting factors like geographical location and availability) and there is good reason to suppose that equal advantages could be obtained if joint contracting were more widely applied to such things as furniture and ward equipment.

Cost, quality and research

A system of bulk purchasing or joint contracting is, of course, a means of establishing a sound, economical machine with which the hospital service can be run as efficiently as possible. But it means much more, for there are incidental benefits which can create for the patient the kind of environment which is now recognised as a desirable part of his cure. Any such scheme undertaken in the hospital service must make some impact on the internal design of the hospital; above all it should help the patient, and money should be spent in therapeutic areas not in offices.

Joint contracting has three main advantages. The first is economy, the greatest single factor governing the adoption of bulk

purchase. The prospect of saving money commends itself and is particularly relevant in view of recent concern with NHS costs. Bulk purchasing can combat increased expenditure without detriment to the patient. The normal rule of the larger the buying unit the more economical the outlay is even more relevant, since better terms are probably given to hospitals than to other undertakings. It is also worth noting that, as far as domestic equipment such as chairs, desks, etc, are concerned, the MoW is potentially the likeliest source for the hospital service, and the use of government stores carries with it the right of pre-emption.

The second point is that cost advantage does not necessarily mean shoddiness. On the contrary, with the establishment of a coordinated system of bulk purchasing, there would be greater opportunity for quality control and the raising of design standards. The ministry itself is now taking design advice and this principle might with profit be extended to the employment of area design consultants (perhaps employed under the regional architects). One of the results of present policy has been to establish supplies officers as design experts and arbiters of taste. Unfortunately they, along with other gifted anarchists like doctors and matrons, have too long believed there are short-cuts to interior design, with the result that hospitals are either dull, frightening or 'contemporary'

most hospitals 'design' their own beds from available components, such as head-rests, wheels, etc. This means that orders for specific models are in the hundreds rather than the thousands, and the disadvantages of high costs far outweight the advantages of satisfying individual requirements. Bulk ordering would enable manufacturers to tool up for mass production, based on research

into new materials and user requirements.



in the worst sense. Obviously individual hospitals must buy certain day-to-day supplies, but that more permanent equipment should also be the responsibility of a local committee of (largely) lay personnel is a short-sighted policy. Design is not merely a matter of taste, and committees rarely have access to specialised information on design problems; their range of choice may be further limited to knowledge of particular retailers or by geographical location. And the final criterion is usually cost.

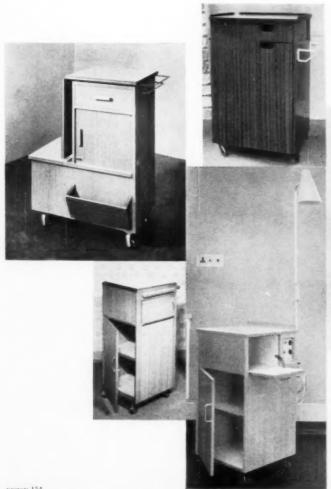
Without suggesting that there are absolutes in the design of the hospital environment, a great deal more could be done by the rational consideration of the therapeutic value of good design. This means some measure of standardisation. The word itself must be divested of any pejorative meaning. But without some form of standardisation bulk purchasing becomes unworkable. Obviously, some items must be tailor-made to hospital requirements and standardisation must not become a strait jacket on either the patient or the hospital (non-medical departments lend themselves to standardisation more easily than medical departments). Also the hospital 'type' or 'pattern' could be avoided - this is usually an excuse for an extra charge and there is, after all, no such thing as a hospital saucepan or a hospital desk.

It is on maintenance, however, that standardisation will make

its greatest impact. The reasons for high maintenance costs are simply high standards of cleanliness, service to installations, damage, etc. Certain materials are better suited to hospital use than others (stainless steel, hardwood) and many disadvantages could be overcome by better design and assembly. The most likely solution is the development of a co-ordinated system comparable to CLASP; the potential of such a system for hospital work, if the usual pitfalls of prefabrication are avoided, is considerable.

Thirdly, co-ordination of supply and purchase will create the opportunity for research and development. Intensive design study, deriving from medical practice in treatment and care, must be undertaken to look into materials and equipment; and into the wider use of disposable goods and automation as well as the newer processes of industrial production. The effects on hospital organisation and management may be considerable, but there would be opportunities to set the pace, rather than simply to follow commercial dictatorship.

There is a need for flexibility in administering the Health Service, which, as the Messer committee pointed out, is constantly developing and is not or should not be static. Supply, and all it implies, can no longer be left to chance. A positive policy is required and to promote this some local sovereignty must be given up.





Each hospital has its ideal locker (usually designed to specifications laid down by matron). Although good designs do exist (for example, the locker designed by Phoebe de Syllas for Poole Maternity Hospital, TOP CENTRE), it is surely unnecessary to produce different versions for each client, especially when the majority are arbitrary, clumsy and complicated. The rational solution would be the appointment of professional designers to investigate basic requirements, and to produce a small range, based on sound technical data, that would be suitable to most ward types.

CORPORATE BUYING AND THE DESIGNER

Developments in recent years have shown how large organisations can, through their buying policies, bring about wide scale improvements in design. The formation of the BTC's Design Panel in 1956, the growing attention now given by the Government to the design not only of embassies, offices and other buildings under its control, but also the equipment that goes in them, together with the improvements in the design of public buildings and interiors of many types, are all indicative of the progress that is being made. However, there is still a long way to go, and there are still many organisations with haphazard and uncoordinated buying policies, otherwise there would be no need for the CoID to organise its international design congress on the theme Design Policy for Corporate Buying, at the Royal Society of Arts this month.

The congress will demonstrate the advantages of a sound design policy in this whole field of corporate buying, which, as one of the speakers points out, ranges from the total conception of a building to the smallest detail of the equipment that goes inside.

Some of the main areas where a coordinated policy on bulk purchasing is important are suggested in this feature. Taken together it can be seen that those who buy or commission buildings and equipment for such diverse purposes must account for a sizeable proportion of the goods manufactured in this country.

For the designer there are many parts to play in this operation. He might be concerned purely with choosing equipment from that which is already available, he might be commissioned to do a special design for a special purpose, or he might be engaged by a manufacturer who produces goods for bulk markets.

How does one choose a designer for work of this type? All the examples shown here are by designers who are on the CoID's Record of Designers, and in some cases the designer was chosen as a result of the CoID's recommendations. About 600 requests for advice are now received by the Record every year and usually three or more designers are suggested from whom the enquirer makes the final choice. An increasing number of these requests have been concerned with some aspect of bulk purchase, and recent enquiries have included hospitals, hotels, universities and Government departments. All recommendations are made after detailed information has been received from the enquirer so that names can be put forward with the knowledge that they will be suitable for the particular requirements of each case.

There are clearly many opportunities for introducing and developing sensible design policies in the various fields discussed here as well as in other equally diverse sectors. It is hoped that the congress will provide a timely spur, for both the social and economic implications are extensive.

Enquiries for designers should be addressed to Record of Designers, CoID, 28 Haymarket, London sw1. A fee of 3 gns is made to trading concerns in Great Britain for each list of names with short biographical notes. The CoID also welcomes more general enquiries in connection with corporate buying. Enquiries should be addressed to James S. Cousins, Purchasing Liaison Officer, Council of Industrial Design, 28 Haymarket, sw1.

Laboratories: new thought on design specifically for the laboratory is rare in this country. But the fact that it is a highly specialised field should not deter manufacturers from consulting a designer, especially if his efforts are backed up by industry or Government sponsored research. Kandya Ltd, which is well known for its kitchen furniture, has set the precedent, and these units for laboratory use were designed by Martin Grierson and Keith Townend. The basic components consist of cupboard and drawer units mounted on a central spine. Apart from the work top, construction throughout is of preformed ply, which allows the units to be exceptionally light and strong, giving unusual flexibility in use and easy access to the services. Cupboards can also be floor - or wall - mounted.





Shops: many department stores are now redesigning their interiors to cater for new marketing conditions and to meet growing competition from the smaller specialist shop. Such schemes involve the purchase of large quantities of standard fittings, as well as the manufacture of many special designs. Gaby Schreiber and Associates, a team of consultants with

experience in a wide range of design projects, recently completed the interior of a branch of Peter Robinson Ltd, in Bristol. Felix Holtom designed the counter units, which are identical in basic structure, although they can be modified to meet the needs of the various departments. The illustration shows three variations of the unit in the knitwear department.

Felix Holtom

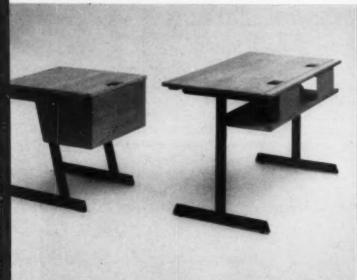






Geoffrey Young

Government: the Ministry of Works, through its supplies division, is the largest single buyer of furniture and furnishings in this country. Its design policy, and the vast scope of its activities were described in a recent special issue (DESIGN 141). When that issue went to press the supplies division was about to form its own design unit. The unit, now established under the direction of Geoffrey Young, concentrates on new work, and Mr Young and his colleagues produce or supervise the majority of new designs that are issued by the ministry. They also collaborate with the ministry's architects' division on furnishing schemes for embassies, etc. One of the most recent ranges produced by the new design unit is this furniture for other ranks married quarters (DESIGN 152 /50-51). The furniture is the first of a series of new designs for the War Office.





Frank Height

Schools: a great deal of research has been carried out on the design and dimensional requirements of school furniture, including desks, chairs and storage units. Much of this work has been undertaken by the architects' department at the London County Council and by the British Standards Institution (DESIGN 133/48-50), and both these organisations can be credited for raising standards in what, 10 years ago, was a very neglected field. Local authority supplies' officers have the chief responsibility for equipping schools in their areas, and it is up to them to see that the desks and chairs they order are made to the correct dimensions. For example,

these desks for Elington Industries Ltd were designed by Frank Height in collaboration with the Shropshire County Council architects department. They both comply with British Standard recommendations* and the variations in the two models prove that dimensional standardisation need not necessarily inhibit flexibility in design. Mr Height was for seven years in charge of a section of the LCC architects' department and he has been tutor in the Department of Industrial Design (Engineering) at the Royal College of Art since 1959.

* British Standard 3030; Part 3: 1959; School Furniture, Pupils Classroom Chairs and Tables.

Universities: new accommodation has to be provided for the undergraduates in our expanding universities, and the selection and design of furniture for student rooms can be an exacting assignment, especially where budgets are limited.

More money than usual was available for the new building at Queens' College, Cambridge, which cost about £100,000 to build and equip. It contains two fellow's sets, and 43 undergraduate rooms, and it was

designed by Basil Spence and Partners (associate in charge – Gordon C. Collins). With the exception of the armchairs the furniture was chosen by the architects. The desk, table and coffee table are part of a special range designed by the architects for university use, and the convertible bed settees were produced for this building. The firm has had considerable experience of designing for universities, including Southampton, Nottingham and the new Sussex University College in Brighton.







Hotels: in recent years numerous schemes for new hotels and hotel conversions have created a special demand for furniture and fittings that are designed to meet the hoteliers' requirements. In a few cases suitable furniture can be bought from ranges produced for the domestic market, and a report published by the CoID earlier this year gives a guide to basic requirements for hotel beds, dining chairs and tables.* This report was prepared for the CoID by a team of hoteliers, and it is aimed at the medium sized hotel. The larger luxury groups, on the other hand, are able to commission their own special equipment. For example, Professor Russell and his firm R. D. Russell & Partners are to design the furniture and interiors for a new hotel that Grosvenor House (Park Lane) Ltd is building in Leicester (see page 83). This appointment follows the work that the firm has done in London's Grosvenor House hotel. One of the bedrooms is illustrated here; all the furniture, including the beds and built in wall fitments, were specially designed for the hotel.

 Copies of the report are available from James Cousins, purchasing liaison officer, CoID, 28 Haymarket, sw1.

Professor R. D. Russell

Phoebe de Syllas





Hospitals: the whole problem of corporate buying for hospitals is discussed in the article on pages 58-61. Perhaps because it is so specialised this is a field where very few design consultants are employed. The Wessex Regional Board set a precedent by asking the CoID's Record to recommend a designer to work on the interiors for a new maternity wing at Poole General Hospital. Phoebe de Syllas chose all the furniture and the furnishings, and advised on the colour schemes for the new block. She was not satisfied with many of the items normally supplied to hospitals and in some cases produced her own designs (one of the lockers, for example, on page 61, and this maternity chair modified from a domestic model). The success of this experiment led to her appointment as interior design consultant to the Wessex Hospital Board, and she is now working on a nurses' hostel and ward block within the area. She is also interior design consultant for one of the out hospitals of the Tone Vale group, a large mental hospital near Taunton.

The street: the thousands of miles of streets, and acres of parks and public areas require furniture and equipment in just the same way as the interior of a building. Large quantities of lighting columns, shelters, seats and litter bins are bought every year, mostly by local authorities. In most instances there is now a good variety of equipment to choose from, and the CoID Street Furniture Panel maintains a list of approved designs that authorities can consult. These lighting columns gained a Design Centre Award in 1960. They were designed by Richard Stevens, a staff designer to Atlas Lighting Ltd, who last year pulled off a hat trick by winning three of the 18 Design Centre Awards.

Richard Stevens





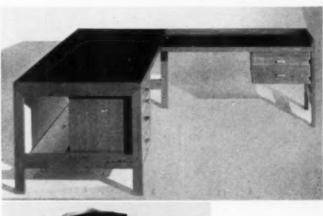
Railways: a sound policy on corporate buying is essential to such complex organisations as the British Transport Commission, which has trains, stations, and refreshment rooms as well as ships and hotels to equip and furnish. While some goods can be bought from manufacturers' standard ranges, a great many items are specially commissioned to meet the railway's specific requirements. This waiting room furniture, for example, was designed in 1957 by Robin Day, and made by S. Hille & Co Ltd to specifications laid down by BR Eastern Region. The furniture is exceptionally resilient and has stood up well to four years of wear and tear. Its high standard of design reflects the policy of BTC's Design Panel.

Offices: in a recent article on office furniture and fittings* Dorothy Meade wrote: "The choice of well planned and correctly dimensioned furniture is severely limited at present, and will remain so until there is increased demand". Far too many manufacturers of office equipment are ignoring the research into anthropometric requirements for office furniture that has been carried out in recent years. Yet intelligently designed and well proportioned furniture can increase the efficiency, as well as the comfort of office staff. These desk units, designed for Bath Cabinet Makers Ltd by Brian Henderson of Yorke, Rosenberg and Mardall won a Design Centre Award in 1960. Their working surface height (28 inches) conforms to British Standard recommendations.

* Better Offices, Institute of Directors, 12s 6d.



Ships: the newly amalgamated P & O and Orient lines is proving to be one of this country's leading design patrons. Teams of leading designers supervised the interiors of *Oriana* (DESIGN 147/40-51) and *Canberra*





Brian Henderson

(DESIGN 153/63-69), and most of the furniture and furnishings were specially commissioned for the ships. For example, all the glassware for *Canberra* is by R. Stennett Willson, a leading designer in this field.









DESIGN AWARDS

This year, for the first time, Sweden has introduced a series of awards for good design. That it is the first year may seem strange for a country which is so strongly associated with leadership in the design of many products for everyday use. Yet this may well account for the evident embarrassment of riches which confronted the international selection panel, for in the end between 70 and 80 products were chosen – a far larger number than has ever been selected for comparable awards in other countries.

The awards have been made by the organisers of Svensk Form, the permanent exhibition of selected designs which was opened in Stockholm two years ago and which was described in DESIGN 132/60. A small selection of the designs is illustrated in this article, but the British public will have an opportunity of seeing a wider range in a special display at The Design Centre from October 6 – November 4. This will be the first time that foreign goods have

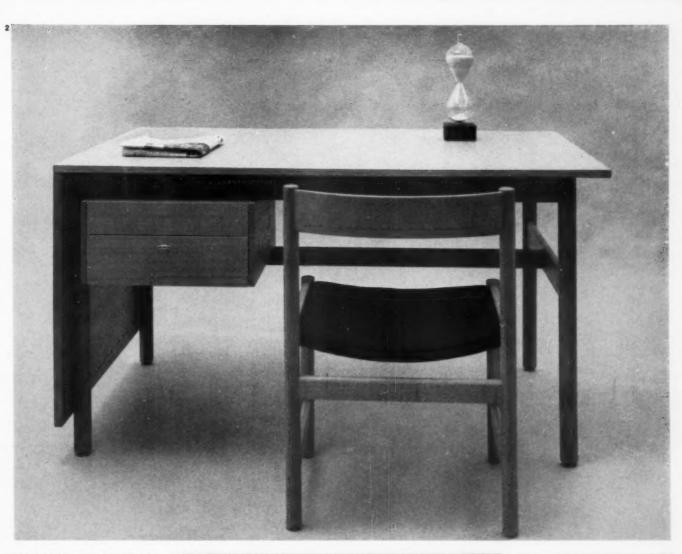
been shown in the Haymarket Centre and it has been made possible by a reciprocal arrangement whereby a selection of our own *Design Centre Awards* from this and previous years will be shown at about the same time in the Svensk Form gallery in Sweden. The reciprocal arrangement extends beyond the exhibitions in the British and Swedish design centres. During October several Stockholm retail stores are arranging displays of well designed British goods, while in London, Heal's, Woollands and Liberty's will be devoting space to special exhibitions of Swedish goods.

The awards were not confined to new products and include a number of classics among Swedish designs produced over the past few years, some of which have been illustrated on previous occasions in the magazine. For comparison readers may wish to refer to our June issue when the current Belgian, Italian and British design awards were illustrated.

Judges of the Svensk Form God Form 1961 awards were: Mia Seeger (Germany) Paul Reilly (Gt Britain) Sven A. Hansson (Sweden) Carl Hernmarck (Sweden) Åke Stavenow (Sweden) Dag Widman (Sweden) Technical consultants were Ing-Marie Berg and Erik Berglund.



1 Crystal glass decanter, model DA3805/31, and tumbiers, model DA3805/11. DESIGNER I. Lundin. MAKER Orrefors Glasbruk AB.



2 Desk (which can also be adapted as a dining table) and chair, model Bibliotek. DESIGNER Triguar Sandström.
MAKER Nordiska Kompaniet Verkstäder.
3 Easy chair, model Contour 127.
DESIGNER Alf Svensson. MAKER Ljungs Industrier.

4 Electric typewriter, model Facit.

DESIGNERS Bernadotte & Bjørn. MAKER
Åtvidabergs AB.







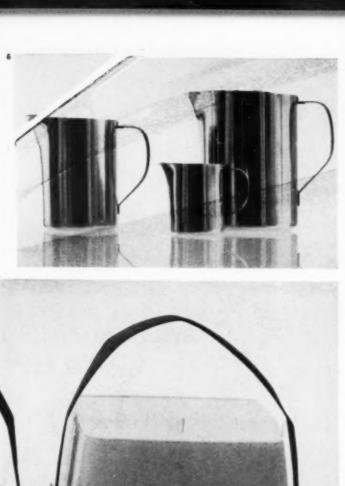
5 Picnic set in moulded plastics, model Taffel. DESIGNER Bernadotte & Biern, MAKER Husgvarna Borstfabrik.

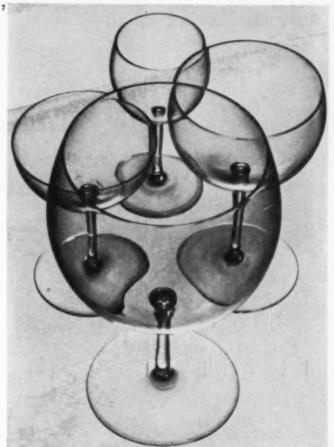
Bjørn. MAKER Husgvarna Borstfabrik.
6 Stainless steel jugs. DESIGNER Folke Arström. MAKER AB Gense.

7 Wine glasses, model Gracil. DESIGNER Vicke Lindstrand. MAKER AB Kosta Glasbruk.

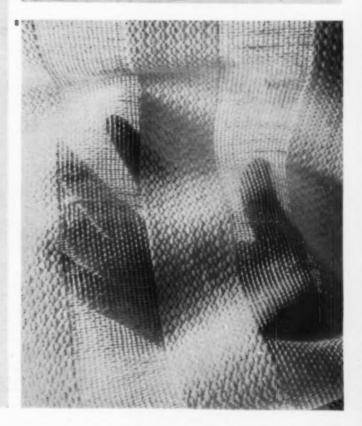
8 Furnishing fabric in cotton and linen, design Ribbon. DESIGNER Age Faith-Ell. MAKER Eriksberg Väveri AB.













9 Lobster forks, designer Pierre Forsell. Maker AB Gense.



10 Stainless steel knife, fork and spoon, model Focus de Luxe. Handles in nylon. DESIGNER Folke Arström. MAKER AB Gense.

DIRECTIONS



NEW PRODUCTS AND IDEAS FROM ABROAD



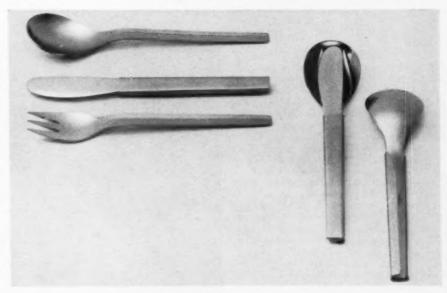


Art schools usually advise against students setting up their own design offices immediately on leaving, but a few exceptions can always be found to the best of rules. Rido Busse is a young designer who studied at the Hochschule für Gestaltung at Ulm and began working as a consultant in the same town as soon as he had obtained his diploma. Already, after only two years (and an anxious period at the beginning), he has an impressive quantity of finished work, two examples of which are shown here. Mr Busse usually models his designs in plaster of Paris, a practice which is common on the Continent but is seldom followed in Britain. He does not normally supplement these models with working drawings.

ABOVE and ABOVE RIGHT Before and after versions of a desk communications set with a moulded plastics case. MAKER Multivox.

RIGHT Cutlery in stainless steel. The knife, fork and spoon clip together to make a compact set particularly suitable for camping. The design was the subject of a research programme at the Hochschule. MAKER Grasoli Werk.









Italy: graphic alliance exhibited

An exhibition of work by members of the Alliance Graphique Internationale was held earlier this year in a recently modernized wing of Milan's municipal art gallery. Opened by Fritz Buhler, the Swiss designer who is current president of AGI, this was the fourth exhibition to be held by the Alliance, previous exhibitions having been held in Paris, London and Lausanne. The Alliance was founded in 1951 with no other purpose in mind than to enable leading graphic designers throughout the world to meet and exchange ideas. Subsequently its strength and influence have grown considerably. In addition to the four exhibitions, three congresses have been held and each year all members are invited to attend a general assembly in Paris.

The illustration of this year's exhibition shows the effective arrangement of panels in the austere gallery. Each designer had one panel and was free to arrange his work in the way he wished, but the uniform size of panels (6 ft square, painted white, black or grey) gave a homogeneous framework for the exhibition and avoided the confusion which might have resulted from this democratic procedure.

USA: dictating system

A new unit dictating system designed by Eliot Noves for International Business Machines Corp continues the range of refined machines produced by this team. In addition to the controls common to other magnetic tape dictation machines, the new Executary units offer fine tuning for indexing and foot control with automatic back-spacing on the secretarial unit. Other features include a choice of ear sets, record volume indicator light, transistor circuitry, and built-in loudspeaker. There are three units available, an executive unit, BELOW, a secretarial unit, and a combination unit; and a recent addition to the range is the portable dictation unit, BELOW RIGHT. All the units handle their various and complex functions with a lack of visual clutter that is a considerable tribute to the designer's concentration on ease of use. Each of the office units measures 11 × 91 × 31 inches and weighs approximately 12 lbs. The portable unit takes five flashlight-size 'C' batteries, measures 21 x 64×101 inches, and weighs 61 lbs.





Australia: fluorescent lamp

This unusual fluorescent desk lamp is designed and produced by a small family firm in East Brighton in the State of Victoria. The firm's stated policy is to avoid producing anything that does not show a clear advance on existing work so that all new designs can be properly protected by patent. Such an ambitious aim might appear difficult to live up to, but this desk lamp and other products by the firm suggest that this policy is reaping plenty of rewards.

The design of the lamp is based on the counterpoise principle, the starter gear being housed in a sand cast body which pivots on the supporting legs to give a useful range of adjustment. Since the lamp is intended for a high quality market, expensive tooling has been avoided, though a less expensive version has been tooled-up for bigger scale production. The lamp is claimed to be stable in its various positions (as shown in this triple exposure) and special care has been taken to achieve a high standard of finish. DESIGNER W. P. Iggulden. MAKER Planet Products.

FARM BUILDINGS: POINTERS TO IMPROVED

J. NOEL WHITE

A competition and an exhibition of new structures and techniques have together created fresh interest in the possibilities of improving the design of prefabricated farm buildings (DESIGN 131/30-37 and 140/50-53).

The Farm Buildings Competition of the Country Landowners' Association was first in the field, with its awards "for original designs". The criteria for these awards were: general practicability, layout, value for money, efficiency, and appearance. But this order does not indicate the priority given to these qualities.

Lack of overall planning

Although details in many cases were well worked out, the judges (E. M. Owens, P. Dunham and N. E. B. Elgar) found that there was little evidence of an overall conception of design as reflected in the organisation of all details and in the general standard of architecture.

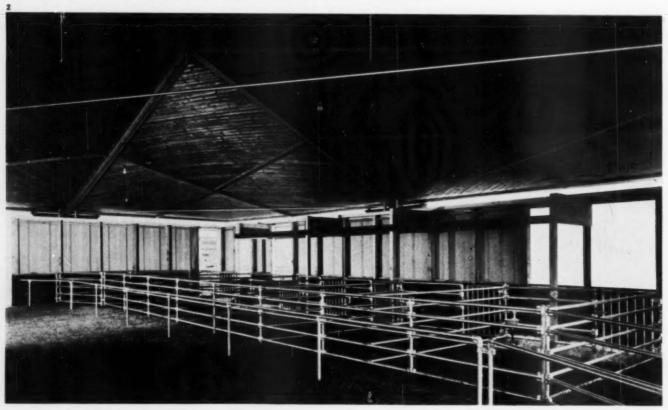
The analysis of the types of parlour design submitted shows a persistence of the abreast type, although method study has suggested that it is less efficient than the tandem or herringbone. Furthermore, the judges reported that some entries were completely outdated. This underlines the resistance of farmers to new and even proved ideas, even when they are submitting entries for a competition which is ostensibly looking for originality.

The entries showed many advantages, such as prefabrication, with its cheapness of erection and the possibility of adaptation and extension, eg, in L B. Thwaites' milking parlour (part of the yard illustrated in 1). In several, detailed attention had been given to ease of operation and cleaning, and saving of labour, although this was by no means general. For example the judges, in commenting on faults or omissions, referred to collecting yards as being too large, too draughty and involving waste of time and labour in cleaning. They also found unnecessary complications in the cow routes and in obstructions such as steps - cumbersome and even unnecessary doors and superfluous supports which obstructed floor space. All this suggests the rarity of proper analysis of farm building layout and equipmeat in relation to function, convenience of operation, general amenity and appearance; the Nottingham University report on cow houses* emphasised the same point.

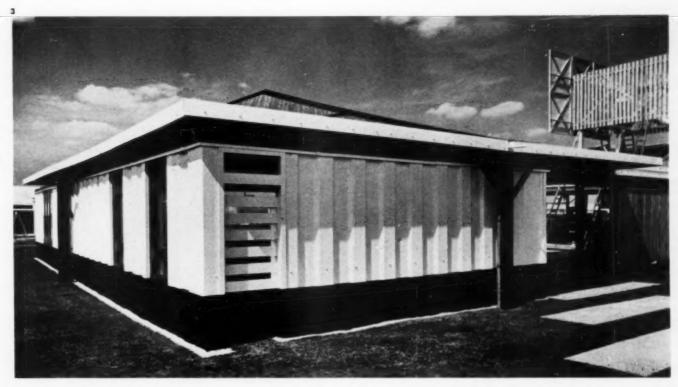
The judges had some difficulty in comparing many differing units and added, "We came to the conclusion that there was no particular merit in the parlour which was no more than a collection of the best components, however good they might be, unless some special skill had been employed in their layout" (my italics). This again is an echo of the Nottingham investigation, which showed that even when farmers had taken experienced advice on the practical aspects of farming, the results were often unsatisfactory because no one had applied the special skill of interpreting the

 New Housing for Dairy Cows in the East Midlands, Department of Agricultural Economics, University of Nottingham, 10s.





STANDARDS



advice in terms of designing prefabricated buildings.

Mr Thwaites, equal first prize winner, and R. P. Walley, who won a special prize for ingenuity, both designed their own dairy equipment as they were dissatisfied with the work of the dairy engineers.

The judges obviously concerned themselves with the general appearance and atmosphere of the buildings and both E. C. Vestergaard (the other first prize winner) and Mr Thwaites were complimented on the pleasant environment created for workers, although there is little evidence of the same concern in the external elevations.

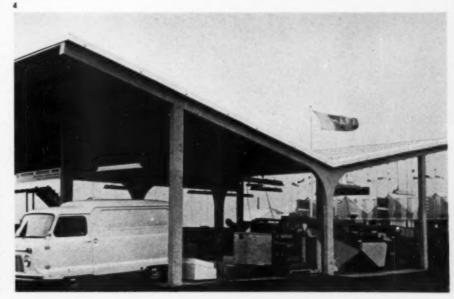
The CLA is to be congratulated on its initiative in sponsoring the competition, and farmers and manufacturers can both find matters of interest and value in this wise report made by judges who had the unenviable job of assessing a wide variety of entries.

Practical cladding

If the CLA competition contributed little to the architectural standards of farm buildings, the Ministry of Agriculture's stand at the Royal Show set out to show that the enterprising structures put up last year could be clad in an efficient and acceptable manner without unreasonable cost. The timber paraboloid roof, 2 (see also DESIGN 142/77), presented a particularly difficult cladding problem which was skilfully solved by the architects, Edward D. Mills and Fartners, who were commissioned by Universal Asbestos Manufacturing Co Ltd at the invitation of the ministry. This exercise, 3, shows very clearly how asbestos sheeting and related materials can reconcile the requirements of function and appearance when handled by a skilful archi-

tect. The effect is achieved by accepting that the cladding stands free of this particular structure and by using a bold corrugation in the asbestos sheet (which is sprayed white to contrast with the bitumastic base), while paying special attention to the proportion of overhang, sheet and plinth.

Another example of serious design on the ministry's stand was the development of the 'Y' frame, 4, by Kent Concrete Products Ltd. Here, the end of the 'Y' had been effectively clad with concrete on outer and inner wall panels, with insulation between asbestos and translucent sheeting. Again, the proportions of these bands of materials were carefully worked out and neat junctions were made by introducing asbestos sill pieces. This system could be developed to give a variety of useful combinations.



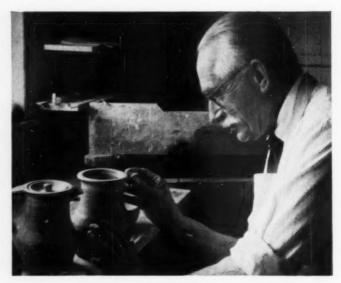
PEOPLE a series about personalities in the world of design

A potter's philosophy

During the 50 years of working life that he is celebrating this year, Bernard Leach's contribution to pottery has been immense, particularly in producing designs for everyday use. Although we tend now to accept this sort of pottery with its calm unpretentiousness as though it had always existed, when Mr Leach first started making it, he was met in England with derision and neglect. Perhaps the chief reason for his survival through bleak years was his conviction that he was expressing a way of life.

Born in Hongkong in 1887, Mr Leach returned to the East in 1909 after completing his studies at the Slade. He was then saturated with the European tradition which assumes that architecture, painting and sculpture are the chief vehicles of expression for the visual artist. Quite by accident he went to a party in Japan where a group of potters, painters and poets were decorating, glazing and firing pots. Although he did not foresee the consequences, it was at this party that he decided that he must learn how to make pots. During the following years, at first working under a Japanese master potter, he became convinced that the Western Renaissance teaching was wrong. He found in it an intellectual approach which he terms "outside in-ness". There in Japan he was discovering that conformity within the strict limits of his materials and the tools of his craft was assisting, and perhaps forcing, him to draw upon his own, and deeper, resources and emotions. This he calls "inside outness", and whereas today this approach receives at least a degree of acknowledgment in the West, at that time it was near heresy.

During these 50 years Mr Leach has made pots which vary little, but his views have mellowed. He no longer feels that the West is emphatically wrong. Its influence is a vigorous fact, and a fact of such magnitude cannot be measured in terms of right or wrong. But he believes and hopes that the twentieth century may chiefly be remembered for the beginnings of an integration of the Eastern and Western ways of life. He has witnessed, and regrets, much easy acceptance of Western materialistic standards by the East; but his own contribution has been to try to bring back to the West an unselfconscious awareness which he believes



began to disappear here in the early Middle Ages.

It is interesting to wonder how Mr Leach would develop if he were to start today afresh. Could he still follow so closely the ideas of Zen, of personal unattachment? Or would he allow himself a greater degree of personal expression? Perhaps it does not matter. Perhaps the only thing that matters is the amount of love that one can put into one's work.



Teaching the architect

At the beginning of this term, a new principal took over at the Architectural Association; he takes office at a time when architecture is undergoing one of its periodical sessions of emotional and intellectual reassessment – a sort of menopause which could mean a great deal, or nothing at all. 'Architecture and technology', to coin a phrase, has, since the IUA congress in July (DESIGN 153/60-62), been a topic of woolly and convival debate, and will doubtless crop up again. In this context, it might be reasonable to expect that William Allen, 47, will do wonders in bringing to the business of teaching at the AA a clear-minded practical realism from his previous research experience at the Building Research Station. His chief interests there, stemming perhaps from his family background (he was born in Canada, the son of the first professor of physics at the University of Manitoba) and the MIT influences at Manitoba where he

trained, were the psycho-physical fields of light, heat and sound, and the problems of philosophy and building design presented by the age of science. Despite his intimate technical and scientific knowledge of building, however, his appointment has been criticised on the grounds that this knowledge is essentially esoteric and that he has not been directly responsible for the design of any one major building (although he was connected with projects such as the Royal Festival Hall); nor has he had much direct teaching experience. On the other hand, this may be no bad thing in so far as it is time that architecture took greater note of rapid developments in technology, and the changing status of the architect which is now a recognisable consequence. Despite his own part in getting the RIBA to take an increased interest in the relationship between science and architecture, and the fact that he was instrumental in forming a separate architects' division at BRS in 1953, Mr Allen believes at the moment (for it is obviously much too early to expect any crystallisation of his ideas on education) that more specific technological material in school would be difficult to manage. Science has a contribution to make, but it is never rounded or whole; it is always fragmented. Design is not merely a scientific process and technique has to serve the imagination. A major problem therefore is how to give architectural students a firm command of technology so that imagination is strengthened by confidence and authority. Mr Allen contends that the architectural profession as a body must re-adjust its sights and, while acknowledging its technological background (not a very new influence, after all), relax its tradition of universal expertise for all individuals, and diversify to achieve higher standards. Again, if the profession is to do its job properly in a period of major change, it must think out its responses to new situations more accurately. Architectural education is receiving (and deserving) thoroughgoing criticism and a lot of cant is spoken about architectural disciplines. But are we clear what these disciplines are or what the term means? Mr Allen feels that architecture should be understood in terms of environment (among such studies should be that of the human sensory system - "architecture is received and understood by it") and economics, and that the architect, though he can no longer be regarded as totally responsible for all aspects of design or the whole human environment, must be in a position to co-ordinate, to advise and if necessary to criticise. He is no longer the overall design technician backed by a

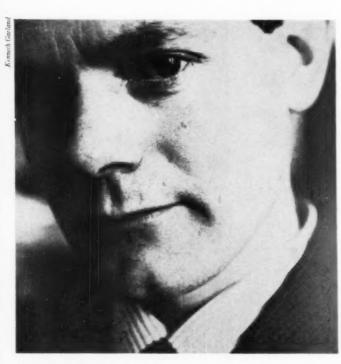
liberal education. It is this rather than a bastardised, watered down technical knowledge which is important, for the teaching of architecture should become "largely strategic and only marginally tactical".

Mr Allen distinguishes between training and education. Studio work is training to acquire a skill, and is a vital part of the curriculum. But he feels that there should be more diversity in the final years of architectural education, even perhaps leaning as far away from the norm as industrial design or town planning. He thinks, however, that true specialisation is probably a function of post-

graduate work (it was a lack of such facilities which brought Mr Allen to BRS before the war), and that school training should go most of the way to making the architect a top-grade practitioner, a co-ordinator with a decisive influence on the buildings for which he is responsible.

Whether or not this will mean radical changes in present educational method is difficult to say, but Mr Allen may bring a greater awareness of technology to the present Bauhaus/Beaux Arts approach to training, and it will be interesting to follow the progress of the AA from this point.

ARCHIE MCNAB



A honeyed glance

Barry Trengove, who designed this month's cover, was the first art director of *Honey*, one of the new teen-age magazines. With Jean McKinley as editor, this was a dream assignment, since he was given a free hand to experiment as he liked with the visual side and work towards his ideal magazine – one in which text and pictures are completely integrated.

Under his art direction *Honey* became one of the liveliest looking mass circulation magazines in this country. Unfortunately, however, like most dreams, this one was short lived – killed by the theory that design and the mass market do not

mix (a misconception cherished by most publishers of mass circulation magazines in this country).

Not that Mr Trengove believes in putting design on a pedestal: "Design," he says, "must serve its purpose and the message must be received by those for whom it is intended. The designer must be flexible enough to apply the right technique to the job."

Mr Trengove's technique is largely self taught, since he had no formal art school training. He was born in Australia in 1932, and started work in a doll factory when he left school. Later he entered a lettering studio in Sydney. The work was of a purely practical nature, but he found this experience of great value as he learnt the whole essence of typography and design in a down-to-earth atmosphere. "We even did the studio chores," he says, "cleaning up, learning how to rule straight lines and how to care for our tools." The standards of craftsmanship were fantastically high and essentially professional. During this time, however, he was cut off from the mainstream of European designers, and the only magazine he saw was Saturday Evening Post.

When he left this studio and worked for a publishing company he saw a copy of the Art Directors' Annual, which had a deep influence upon him. In fact, he says, it changed his whole outlook and direction. Artists like Ben Shahn and David Stone Martin opened his eyes. He began to get other journals, Seventeen, American Artists, Esquire, and fell under the influence of Ronald Searle, Eric Fraser and Paul Rand. He studied drawing and illustration at night school and began to design and illustrate for advertising, publishing and newspapers. After two years in Scandinavia he came to London in 1957, still uncertain in his own mind as to the right direction he should take. Inevitably he joined an advertising agency where he worked for two years. Although he found the atmosphere stultifying, one or two accounts he handled were outstandingly successful. He experimented with graphics and learnt the value of planned advertising, seeing things through and designing a whole campaign. He grasped the idea of different concepts for different spaces, large or small. He felt that planned advertising had a direct bearing on, and relationship with, the graphic image and that in advertising, as well as magazine design, words and pictures should be integrated.

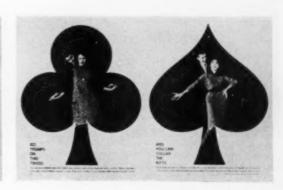
He left the agency to launch, design and art direct *Honey*; he enjoyed the work for a year while he was given the maximum freedom for his developing ideas. Now he feels well enough equipped to free lance. Unconfined by routine work he can choose the jobs that suit his particular talent and vision. He thinks that his practical experience has taught him more than a rigid art school training could have done.

ERIC AYERS

A cover and two spreads from Honey







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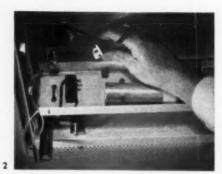
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- 2 Plug and socket connection.
- 3 Detachable and hinged gear trays.
- 4 A pull-push method of opening and shutting diffuser, which can be hinged and detached. (Locking device—Patent application No. 32933/59).

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Firing at Potters

F. H. K. Henrion, president, SIA, speaking at the opening of an exhibition of work by students of the Pottery School of the Stoke-on-Trent College of Art on Pottery Design - or lack of it:

"... British pottery has not yet produced that coffee or dinner service whose form would compare with those of Arabia or Rörstrand, whose patterns derived not from feeble imitation of the past, but from the inspiration of the electric present. Were such a set to be designed and marketed by any British pottery today, the rest of the industry would probably wake up and make an effort, but what firm has shown any sign of doing so?

"Meanwhile, the world market for contemporary pottery has been taken over by Scandinavia, Central Europe and Italy, by manufacturers in these countries who have risen to the needs of today's and tomorrow's customers, who have not necessarily abandoned their past, but who are building an imaginative and positive and profitable future based on it, or at least on its profits.

"The pottery industry is fully aware that all is not well. The CoID and the Press, as well as professional designers with an international reputation, have made repeated statements voicing their alarm and despondency, together with expressions of hopes which, alas, have not been justified over the years since the war.

"I do not feel this is due to a lack of design talent, and this exhibition in the heart of the industry, along with many others, bears proof of this. What is indicated is a complete change of heart within the industry towards contemporary design both of shapes and of decoration, a trust in the available talent, a trust in the future markets and the knowledge of how to put new designs across.

. . . Manufacturers are gradually waking up to the changed needs of a new affluent society both at home and abroad. But will they wake up quickly enough? They do employ designers, they do have design departments - but do they approach design problems in the right spirit, do they make design the concern of top management? It is not enough to improve the appearance of articles a little here and there to bring them superficially up to date. It is too late to make do with a face lift when what is required is a new face. Face lifts may fool some people for some of the time, but not for long. What is really necessary is a reassessment of products and processes, of needs and wants of the younger generation who will be today's and tomorrow's customers. Substantial sums of money must be put aside for design research and design development and designers must be given a free hand by the manufacturers. Surely, when the industry's turnover is at its highest, it should be easy to set aside funds to ensure that today's reputation based on yesterday's products will be carried on as tomorrow's reputation based on pottery which is truly of today. I think it entirely probable that contemporary pottery can be produced in this country which will be on a par with that from the other countries I have mentioned, but it needs much more than the designer's enthusiasm to bring this about.

"The onus rests most squarely on the manufacturer's shoulders, and also on his conscience. I have visited potteries in Scandinavia and in Germany and talked to their management. I found there a confident belief and trust in design and designers; I found them anxious to make things easy for designers to do their best on their behalf and I have seen how they market their new lines of pottery with confidence and subsequent success.

"These new departures are not at the expense of their past but based on the profits derived from it. It is not enough to pay half hearted lip service to design by taking a student from the Royal College here, employing an outside consultant there, and sitting on platforms with other design well-wishers, who often preach what they do not practise."

Reliable testing

Elizabeth Gundrey, speaking to the Institute of Weights and Measures on The Consumer Advisory Council and its Shopper's Guide:

. . . Perhaps the most fundamental question about these publications (Which? and Shopper's Guide) is the one the public rarely asks: how reliable are their test methods, and their interpretations of test results? Experts disagree violently as to the reliability of even 'recognised' or official test methods; and when an attempt is made to equate a laboratory test with real-life experience (the effects of an abrasion machine on trousers, compared with the effects of a small boy's bottom, for instance) the ice becomes even thinner. Here Shopper's Guide is fortunate in being able to draw on the expert yet impartial knowledge of BSI's 70 technical officers, and of organisations associated with BSI, but even so its results are sometimes challenged, by industry or others, and Which? regularly has its critics too. Shopper's Guide and Which? quite often report on the same goods, sometimes using different test criteria, and occasionally coming to very different conclusions. For instance, an oil stove strongly recommended by Which? was found by Shopper's Guide to be a danger in a stiff draught. This is perhaps the strongest argument for having two organisations doing similar work, rather than just one.

"Nevertheless, even if there is disagreement over some of the conclusions drawn, the work undoubtedly does good in the long run if only because it encourages people – manufacturers, retailers and consumers alike – to think more critically about the goods they make, sell or use. Anything that stimulates a desire for information and an urge to seek the right answers to questions is all to the good."

Research by consumers

Caspar Brook, director, Consumers' Association, speaking to the British Association for the Advancement of Science on Research by Consumers;

"... So far in our relatively short existence... we have had to be content with comparing the products on the market. But this is clearly only the beginning. The next step must be to identify the products that are needed by consumers but that are not yet on the market. It is a characteristic of our producer-

dominated society that many of the consumers' real needs are insufficiently studied by the engineers and business men . . . For instance car manufacturers have failed to give us the private vehicles that consumers really need in the second half of the twentieth century . . . Do we really want chromium and other so called brightware that has to be polished with loving care on cars and domestic appliances? Do we really want cars with seats that resemble chairs and that, therefore, transmit to our bodies every movement of the vehicle? Or, at the other extreme, do we really need or want tin openers that produce razor sharp discs when we use them? Why cannot we have sinks and working surfaces in kitchens whose heights we can vary at will? When will we be freed of having to hand wash dishes - one of the greatest recurring drudgeries of the home? Must we be content to clean our shoes by hand? Undoubtedly, in time our businessmen will let the technologists find the answers . . . But progress will be slower than it could be unless research into such matters is undertaken by consumers or at least initiated by them."

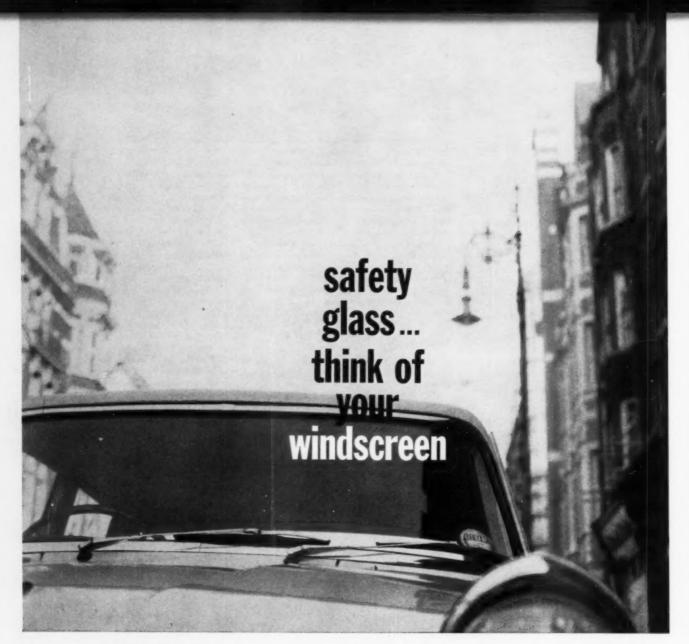
The user and the expert

John Christopher Jones, speaking at the 1960 DSIR Exgonomics in Industry conference; the proceedings of the conference have recently been published, and are available, price 2s 6d, from HMSO, York House, Kingsway, London wc 2:

". . . The point about which I think it would be most useful to speak, as it is closest to my experience and has not been mentioned here at all, is the role of the industrial designer himself. He is a new specialist of whom many people here have not heard very much, but we have all seen and come into contact with his efforts so far. The stylist of motor-cars is perhaps the most notorious member – sometimes he is the least popular member – of this occupation.

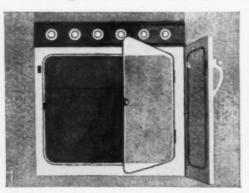
The point about industrial design is that if it is left in its present state it can encroach upon the same field as the ergonomics of the product - that is, making the product fit the person for whom it is intended. So far, industrial design has concentrated almost entirely on making it look nice to the person who is going to use it, and making the product look nice has, up to now, sometimes made it worse from the ergonomic point of view - as we know when we try to step down into a low-slung streamlined car which has everything wrong with it from the posture point of view but everything right with it from the sales point of view. If this situation is to be improved and I think it is being improved - we will see developments which will bring about a much closer integration between industrial design and ergono-

"Many people here will be quite unaware of the extent to which in American industrial design schools, and to a certain extent in the few industrial design schools we have in this country, there is a new generation of design teaching being introduced. A new kind of industrial designer is emerging, one who has far more than a passing acquaintance with the kind of ergonomics about which we have been talking today."



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\mathbf{NEWS}

COURSES and LECTURES

Industrial design and ergonomics

The Manchester College of Science and Technology, which is also the faculty of technology in Manchester University, has initiated a new course of teaching and research in industrial design and ergonomics. The subject is being introduced in the department of building under Professor Denis Harper; and J. Christopher Jones, of AEI Manchester, has been appointed lecturer in industrial design.

The initial intention is to begin research in industrial design and ergonomics and to introduce lectures on these subjects into the existing degree courses in engineering and building. Later it is hoped to start a post graduate course in industrial design. The emphasis will be on the design of capital rather than domestic equipment, and on the scientific and ergonomic as well as the aesthetic aspects of design.

The design of quantity produced building components and the ergonomics of buildings and building equipment will also be considered.

Engineers and design

The CoID is to hold two more design appreciation courses for engineers this autumn. A staff course will be held in two phases, from October 23-27 and from November 20-24, and a course for executives from November 27 - December 1. The courses (similar ones were described in detail in Bridging the Gap, DESIGN 150/63-66) will be residential, so as to make the fullest use of available time and to encourage group discussion: fees (which include accommodation but not travelling expenses) are 25 gns for the executive course and 35 gns for the staff course. Reservation forms are available from Miss Sydney Foott, education officer, CoID, 28 Haymarket, London swl.

Talking about architecture

The Royal Institute of British Architects is launching for the first time a series of public lectures on architecture. They will be given at the RIBA by R. Furneaux Jordan, and will be: Prelude (November 15), Modern Architecture Abroad (November 22), and Modern Architecture at Home (November 29). Full details are available from the secretary, RIBA, 66 Portland Place, London w1.

INFORMATION ON DESIGN

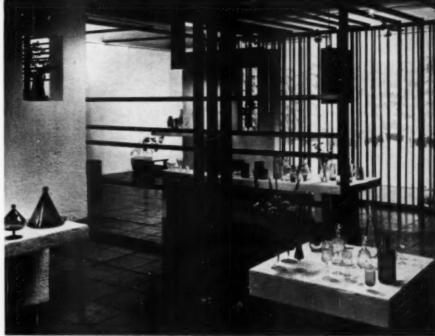
Office furniture

The BSI's anthropometric advisory committee has issued recommendations for the dimensions of desks and chairs for office machine operators. Desks for machine operators should be 28 inches high, and the recommended height for the typist's desk is 25-251 inches. The typist's chair should be adjustable through a range of 151 - 191 inches.

BS3404: Recommendations for Office Machine Operators Chairs and Tables will be reviewed in a later issue of DESIGN. Copies are available, price 3s, from the British Standards Institution, Sales Branch, 2 Park Street, wl.

Quality council

"Quality control starts in the design stage, and operates at every step in production." This was a point



Sweden in Ceylon

Michael Caddy designed this recent exhibition at the Ceylon Tea Centre of glassware from the Swedish firm of Upsala-Ekeby A/B, which is imported by B. Jonzen & Co Ltd. Mr Caddy's display, an excellent setting for the exhibits, makes extensive use of polystyrene. This is claimed to be the first use of the material as an exhibition medium; light in weight it lends itself to being cut and formed into large sculptural shapes.

made by the British Productivity Council at a recent London meeting inaugurating the promotion of a new National Council for Quality and Reliability. The council's declared aims are: to supplement the activities of existing organisations; to act as a central source of information; to advise on quality control and reliability training courses; and to organise conferences.

The organisations declaring interest in the early stages of the council's inauguration include the British Institute of Management, the Department of Scientific and Industrial Research, the British Standards Institution, the Federation of British Industries, the British Transport Commission, the War Office and the British Productivity Council.

TOWNSCAPE

Street light experiment

The CoID is co-operating with the Wandsworth Borough Council to extend the exhibition of lighting columns from London's South Bank to a practical demonstration of lighting on a main road.

The CoID will assist it in lighting a half mile stretch of the main A3 road at Roehampton Vale/ Kingston Road. This road is being widened and is due to be lit in various stages by some 24 columns; the progress of this work and the road itself are ideally suited to making it a demonstration ground for new 35 ft lighting columns.

The choice of the light source is in the hands of the borough lighting engineer, but the columns will be selected from those shown at the CoID's exhibition on the South Bank, and in the initial stages a dozen concrete and a dozen steel columns will be erected. Breaks in the road will be used to show how changes from one model to another can be made satisfactorily.

The question of extending the exhibition to include side street lighting is also under discussion.

City planning

Extensive new development plans have recently been announced for two large provincial cities.

Town Centre Securities, a Leeds property developer, has announced its plans for the Leeds Merrion Centre building project. The scheme involves 97 shops, six kiosks, a 14 storey and a five storey office block, a motel of over 100 rooms, a dance hall to accommodate 2,500 people, and what is claimed to be the largest multi-floor garage in the country (it will take 1,000 vehicles). It is hoped that the scheme will allow pedestrians to shop in an area closed to vehicles which will, nevertheless, be parked nearby. The architect for the scheme is to be Gillinson & Barnett, a Leeds firm.

The other project is for an area of just over an acre in the centre of Leicester, where the London hotel company of Grosvenor House (Park Lane) Ltd is to build a 210 room hotel with 10 shops, a 20 continued on page 85





Here's how the ERCOLion secures extra comfort. The patented method of anchoring the reinforced rubber webbing to the frame allows shock-absorbing action that is exclusive to Ercol.

storey office block, and an underground garage for 300 cars. The project, which is shortly to be submitted to Leicester City Council, has been designed by R. D. Russell & Partners, and is illustrated RIGHT.

Oxford renaissance

The recent revival of the Oxford Design Society has now reached the point at which membership during the first two terms of the last academic year reached a total of over 150. Moreover, the society has a major project in hand: the publication of *New Oxford*, a "comprehensive guide to the new architecture in the university and in the city". It is hoped that the booklet, which is provisionally priced at 2s, will be revised and enlarged annually; one of the projects for next year is a survey of undergraduate rooms.

STUDENT AWARDS

Scholarships

The Leverhulme Trustees, in consultation with the CoID and the Society of Industrial Artists, have announced an annual award for industrial design. Students at British art schools and colleges who are working on full time courses in industrial design (engineering) will be eligible. The award will be of the value of £500, and is intended for study in Europe over a period of not less than 10 months. The first award will be made in 1962.

The Textile Institute is to award a design scholarship of £250 value, to be tenable at the Royal College of Art, to further the subjects of design and colour. The course, whose object is to provide training for a producer (ie, a man responsible for design policy in a textile firm), will be concerned not only with design but also with the retail, publicity and advertising aspects of the textile business. It is hoped to include periods of experience in a foreign centre.

The FBI industrial art committee also awards an annual travel grant (value £100) to a student at the Royal College of Art. This year the grant has been presented to Roy F. Gray, who has just completed







The Leicester Hotel Scheme (see City Planning which begins on page 83).

his course in the department of industrial design (engineering).

Last year Robin Darwin, principal, Royal College of Art, presented a gavel, Below, to the FBI committee as a symbol of the college's deep appreciation of this generous encouragement from industry. The gavel, in rosewood and silver, was designed by Stuart Devlin, and the leather case was designed by Peter Waters. The lettering on the gavel is by John Brinkley.

OBITUARY

Frank Gibson

Frank Gibson, for many years chief designer of Morton Sundour Fabrics Ltd, died recently in hospital after a short illness. He joined the firm in 1910, when it was known as Alexander Morton & Co, and later started Morton Sundour's first studio, at Newgate Street in the city.

COMINGS AND GOINGS

CoID farewells

Michael Farr, former editor of DESIGN, will resign from his post as Chief Information Officer, Co1D, at the end of this year in order to establish a consultancy – Designers Syndicate – early in 1962 at 185 Piccadilly, London w1.

Kenneth Garland, who has been art editor of DE-SIGN since 1955, will be leaving in January to expand his own free lance practice in graphic design. Mr Garland was a student of the LCC Central School of Arts and Crafts, and before joining the magazine was art editor of Furnishing.

More store design

Following their work on the interiors of the store of Peter Robinson Ltd at Bristol, Gaby Schreiber and Felix Holtom have been retained by the firm for the planning, interior design and furnishing of a new store to be built at Watford.

New president

F. R. Yerbury, director of the London Building Centre, has been elected permanent honorary president of the International Permanent Conference of Building Centres. The appointment is in recognition of the pioneering work of the London Centre within the movement.

MISCELLANEOUS

CoID and farm buildings

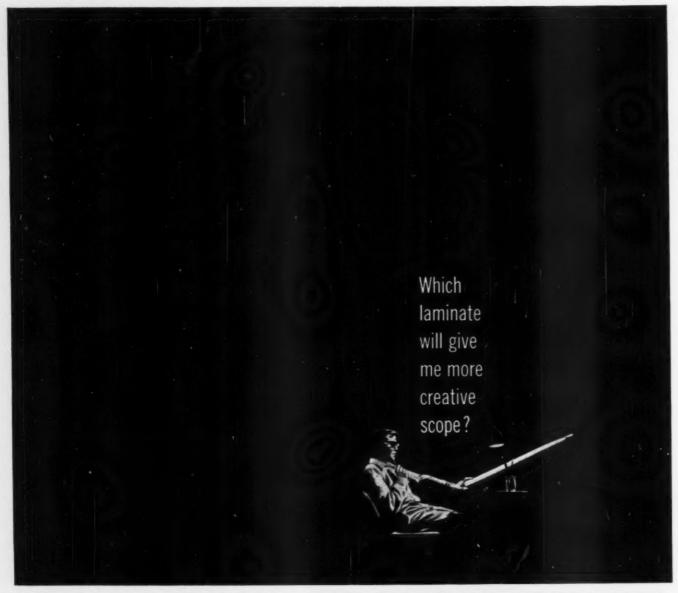
Since DESIGN began reviews of the design standards of prefabricated farm buildings, landowners, manufacturers and officials have increasingly turned to the CoID for advice on this subject.

The CoID has therefore invited the following to join an advisory panel on farm buildings: F. J. Stratton, chairman of the Fatstock Marketing Corporation Ltd (chairman); Edward D. Mills; Sir Gordon Russell; Michael Shepheard; John Voelcker; J. Noel White, deputy director, CoID and Peter Whitworth, industrial officer, CoID (secretary).

As a first step, the panel will survey the range of standard components available in concrete, steel, aluminium, timber and plastics. This will be done with a view to recommending profitable lines of development and drawing attention to the more promising aspects of current production.

Research group

The Institution of Civil Engineers, the Federation of Civil Engineering Contractors, and the Association of Consulting Engineers announce the formation of a Civil Engineering Research Council. The council, which will not initially have a laboratory of its own, will receive and consider proposals regarding subjects for research, select those with the strongest claims, find a research establishment able and willing to undertake the work, allocate funds, and continued on page 87



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provide the requisite co-ordination. The council has launched an appeal for funds.

Further details are available from Major D. H. de T. Reade, information officer, Institution of Civil Engineers, Great George Street, Westminster, London swl.

EXHIBITIONS Graphics on tour

The travelling exhibition of the 1961 Layton Annual Awards has been invited to visit the following cities: Liverpool (at the College of Art from October 31 – November 2); Manchester (Regional College of Art, from November 7 – 15); Newcastle (College of Art and Industrial Design, from December 4 – 16); and Birmingham (no details yet available).

Morris tour

Morris & Co, the touring exhibition organised by the Arts Council with the co-operation of the circulation department of the Victoria & Albert Museum (DESIGN 151/55-56), will be on show in the Arts Council Gallery, Cambridge, until October 7.

At home . . .

British Standards for Good Shopping and Safety Exhibition, Houldsworth Hall, Manchester, October 24 – 26. International Motor Exhibition, Earls Court, October 18 – 28.

Building Exhibition, Olympia, November 15 - 29.

... and abroad in 1962

Electrical Engineering Exposition, New York, January 29 – February 2 (apply H. F. Griebe, exhibits manager, Reber-Friel Co, 117 South 17th Street, Philadelphia, Pennsylvania).

International Toy Fair, Nuremberg, February 11 - 16

(Lep Transport Ltd, Sunlight Wharf, Upper Thames Street, London Ec4).

International Agriculture and Agricultural Machinery Exhibition, Brussels, February 11 - 18 (Secretariat-General, Salon de l'Agriculture, 29 rue de Spa, Brussels).

International Radio and Electronic Components Exhibition, Paris, February 16 – 20 (Fédération Nationale des Industries Electroniques, 23 rue de Lubeck, Paris 16).

International Spring Fair, Frankfurt, February 18 – 22 (Lep Transport Ltd, Sunlight Wharf, Upper Thames Street, London EC4).

International Commercial Vehicle Exhibition, Amsterdam, February 22 – March 4 (Netherlands Cycle and Automobile Industry Association, Europlein 8, Amsterdam 21).

LETTERS

Lettering and legibility

Sir: Practicality and aesthetics apart, experiments in legibility should at least be objective. Unfortunately, that carried out by the London Transport Executive was not (DESIGN 152/56-61).

The London Transport bus blind experiment shows that upper and lower case and capitals are compared in the same type size. By a slight reduction in the relative height of ascenders and descenders and capitals, the x-height of the lower case letters in illustration 4 (page 58) could have been significantly larger, with possibly an equally significant gain in distance legibility. London Transport has now decided to go ahead with bus blinds in upper and



TV at the Centre

A recent Associated-Rediffusion programme featured a team of experts discussing kitchen design in The Design Centre. The illustration shows Michael Farr, chief information officer, CoID, and Emlyn Jones rehearsing the broadcast.

lower case. Is it too late to have Edward Johnston's condensed sans redesigned with this object in mind?

HANS SCHMOLLER

The Old Mill House

West Drayton

Middlesex

Legible suggestions

Sir: The work done by the Road Research Laboratory on the legibility of capitals versus lower case letters is excellent as far as it goes. However, the conclusions drawn from it are bad – really bad.

Those commenting on the report are thinking too much about lettering and not enough about sign requirements. The following points might help towards seeing the problem in its larger context:

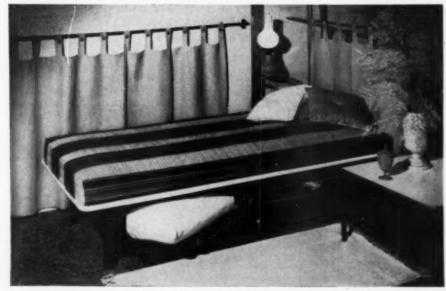
I The sensible thing is to use both capital place names and lower case place names, making use of the contrast in the manner demonstrated by the London Transport Executive.

It is now clearly established that lower case is not more legible than capitals, contrary to the statement in the Interim Report to the Minister of Transport by the advisory committee on traffic signs for motorways.

2 Tests are not made at real distances, and it has been found that capital legibility decreases at a lesser rate than lower case (Donald G. Paterson and Miles A. Tinker, Readability of Newspaper Headlines printed in Capitals and Lower Case, in Journal of Applied Psychology, Vol 30, 1946). Undoubtedly serifs will continued on page 89

New uses for glass fibre

Vitesta Ltd, a subsidiary formed recently by Vitafoam Ltd to investigate possible new uses for reinforced plastics in the consumer and producer goods field, has introduced a new range of divan bases in glass fibre. The firm claims that these are ideal for use with a Latex foam mattress. The design illustrated here, with a built in storage unit, retails at £36 10s.





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further lessen the rate.

3 My form of letter and layout for a motorway sign (DESIGN 152/59 example 5c) can be read from at least 175 ft further away than the existing lower case signs with equal areas.

4 Consequently, if this 175 ft is not required for added safety, then the sign area can be reduced by one third and the height by a half approximately.

5 This would give us what we all want, smaller and lower signs. Aesthetics cannot be divorced from the overall shape and size. When will the penny drop?

DAVID KINDERSLEY Dales Barn Barton Cambridge

Fashionable breezes

Sir: I see that Bill Gloag was told (beautifully refreshingly) by Faber Birren (DESIGN 151/57-60) that fashion, far from being beneath contempt, is an essential component of the design scene. All material forms are subject to change by their very nature, and fashion is the measure of that change. It is most natural, then, that such a very material thing as a paint range should be affected by fashion, since colour preference is a notoriously swiftly changing phenomenon. Those of your readers who have work-

Are you sitting comfortably?

This adjustable chair was devised and built by the research department of the Furniture Development Council for use in their comfort experiments. Dimensions can be compared systematically on the chair by adjusting any single part without any other features being altered. Height, depth and tilt of the seat, and pitch, height and vertical profile of the back are also adjustable. Arm rests may be added. Research work involving this chair has now been taken over by the Furniture Industry Research Association.





Students in industry

Barbara Taylor of Peel Park Technical College, Salford, left, and Ann Prain of Stockport School of Art, have recently been working under industrial conditions in the

design studios of Carpet Trades Ltd, Kidderminster, as part of the firm's scheme to give outstanding final year art students this opportunity.

ed closely with B S 2660 since its first appearance are well aware that it is wearing a little thin, and needs overhauling, extending or replacing. (It is a sign of the times that at least one paint manufacturer is now offering the 101 range plus extra colours.)

Let it not be thought that the mistake is to propose a logical range – far from it. The error lies in assuming that one range can be nearly all things to nearly all men for nearly all of the time. After all, the particular colour choice represented by B S 2660, however logically it may be arranged, is in the last analysis the partial filling of an infinite grid, a choice of colours, by a group of men unfailingly biased by their preferences, which are dictated by the influences (fashion naturally and rightly amongst them) bearing on them from divers sources. Mr Gloag should know that the number of, for instance, 'soft darks' thought appropriate in one decade will in all probability be either quite inadequate or quite unnecessary in the next.

As for the standardisation of colours in other products, this is so much eyewash. Anyone who has compared even B S paints from different manufacturers knows that normal colour matching is an uncertain art; given different textures, materials and rates of fading, the possibility of maintaining equivalence (even should it be thought desirable) becomes purely theoretical.

Although, as an insular Englishman myself, I have reservations about the type of preference research with which Mr Birren is concerned, I cannot help feeling embarrassed by the tight little island note in the argument from 'our' side, and it makes me wonder whether our precious little heritage is so precious after all, if its defenders are so obviously unable to cope with the great big breezy world out-

It seems to me that Mr Birren may act as a very necessary thought-provoking irritant.

c. FLEETWOOD-WALKER
13 Lyttleton Road
Edgbaston
Birmingham 16

Bill Gloag writes: "Fashions, by their nature, single out colours arbitrarily and glamorise them. BS 2660, on the other hand, has the very different purpose of encompassing the whole field of colour in the form of a balanced, economic and orderly palette which recognises technical limitations in manufacture and performance. It is not perfect, but as an attempt to replace chaos by order and assist rational thinking about colour it has proved its worth.

"On the whole, I suggest that fashion-mongering has a degrading effect upon design and designers."

With the gloves off

Sir: I must comment on the article Colour Research in Question. To be blunt, Bill Gloag and F. C. Ashford were to my mind just too god damned pleasant to stand. What Faber Birren and Madison Avenuers need is a slashing attack from the likes of Abram Games, who went for them in Aspen one year. He took on that whole crew by himself and came out very well indeed – spoiled a few appetites, he did, and an ulcer or two flared up, I'll bet. These success-

continued on page 91



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New
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colours
for
yourself

See for yourself the new lineleum colours by the Dundee Lineleum Company. These colours in Dundee's new contract quality range provide the designer and architect with far more creative scope. You can see the colours yourself simply by writing or 'phoning for the new Dundee Folder containing actual samples of Lineleum.

The colours were specially designed for architects by a well-known colourist. They can be used for both modern and traditional schemes and give architects and designers greater freedom in the decoration of interiors.

Another way of seeing these colours is to visit the new Linoleum Centre in Little Britain, E.C.I. which has just been opened by Dundee, Here you will find all you need to know about linoleum and its installation and you can talk over specific problems with the technical staff who are always present. You can discuss problems in your own office too, just by asking for a member of Dundee's Technical Advisory Service to visit you.

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ful businessmen need a smashing counter attack from every direction into which they penetrate, and their opinions and influence are just about everywhere. A man becomes adept in passing things around for more than he paid for them and he feels he knows all about anything. I must re-read The Man in the Middle from Industrial Design once more-Mr Birren is squatting right there treating the rest of us millions as consumers, not users. The whole world is a showcase.

> HOOD GARDNER 50 Highland Drive Iowa City USA

BOOKS

The visual arts today

Editor, Gyorgy Kepes, Wesleyan University Press, Middletown, Connecticut; Alec Tiranti Ltd, £2

The trouble with symposia is that they rarely seem to justify the time and effort taken to prepare them. This book contains 22 short articles by eminent authorities in the fields of art and science and about as many snippets of published statements by artists. All the contributors are of great distinction and each of the articles would gratify the editor of any magazine lucky enough to print it. But collected into an immaculately printed, elegantly bound culture book their merits inevitably fade, and the conflict between the topical expendability of much of the matter and the permanence of the substance of the publication provokes irritation. It is a weighty book with much lightweight reading - a symptom of the tendency in American academic life to bolster scholarly repute with publication for its own sake, with trophies which look better in a report by the dean of studies than they do in the hands of the student.

Gyorgy Kepes, the editor, is professor of visual design at MIT. He has had excellent opportunities to associate with some of the best scientific and technical minds of our time and he has taken full advantage of these. His exhibition The New Landscape, later published as a book, revealed the extent of his infatuation with the visual by-products of scientific thought, and his continuing efforts at a synthesis of the arts through scientific affiliation seem always laudable but somehow ineffectual. In this, his latest attempt, he puts forward the views of "more than 50 outstanding minds" on today's art and its relations to the complexities of modern life. Unfortunately, the 50-odd nibbles at the problems, in spite of their pre-digested character, leave a certain amount of dyspepsia.

Two of the articles are very much to the point. John Burchard conducts a well timed post morten on the withered partnership of architecture and the other visual arts under the title Alienated Affections in the Arts; and James S. Ackerman reveals, in a penetrating survey, the divorce of art history and art criticism. These giants of the humanities stand up well against such scientist contributors as Paul Weiss, a biologist, and Andreas Speiser, a mathematician, who exemplify in their articles the shallowness of present relationships between art and science.



Student scheme

Scottish Field sponsored a recent exhibition in a Glasgow store in which a complete set of house interiors was designed by nine interior design students of Glasgow School of Art. The judges awarded the prize to this setting by William Gray.

Rudolf Wittkower, as ever, is absorbing on proportion. There are odd moments throughout the book when the reader begins to sit up and take notice, but not often with such alacrity as when he meets the article by James J. Gibson on Pictures, Perspective, and Perception, an essay which sparkles with ideas as the author forges before your eyes the terminology of his creative thinking. Mr Gibson is unique, a throwback to another age of empirical science, who seems oddly out of place in this era of methodology. While being naive in the extreme in his understanding of contemporary art, his studies on the nature of vision abound with notions of great importance for the artist today. RICHARD HAMILTON

Finnish design

Editor Bror Sjöman, The Finnish Foreign Trade Association, E. Esplanaadikatu 18, Helsinki, 400 fmk

The excellent photographs in this publication show just how exciting modern hand and machine made

Safety from fire

This prototype nursery fireguard, shown recently on the stand of the Women's Advisory Council on Solid Fuel at the Mother and Baby Exhibition, was designed specially for the display. The top can be opened for refuelling without the guard being moved, and there is an airing rail. The guard is secured by hooks fitted into sockets set into the wall.



products can be - given good design. The brief textual comments point out that the inspiration for most of the products has been drawn from the heart of nature in Finland and from natural sources and resources: "All nations, perhaps, have gone through a similar period of nearness to nature. We are fortunate in having this period a little later than others. But perhaps it is to this very fact that the powerful rise of modern Finnish design may be attributed". Despite this 'natural' bent, the present trend in applied art is veering towards "curved, opulent forms, with an enriched and intensified colour scheme", and in this context the vigorous combinations cannot but be admired.

The high ratio of design awards to Finland in the last three Milan Triennales is indication enough of the international break-through for Finnish crafts and design - natural or otherwise. M .- J. LANCASTER

Addenda

DESIGN 150/103: Letter Design in the Graphic Arts, Mortimer Leach, Reinhold Publishing Co, New York, is available from Alec Tiranti Ltd at £4 16s. DESIGN 151/93-95: Arthur Barker Ltd has sole publishing rights of Robert Osborn's The Vulgarians in the Commonwealth (except Canada), and will publish an edition of this book on October 13 at 15s.

This month's cover

This month's cover was designed by Barry Trengove, whose work is discussed on page 79.

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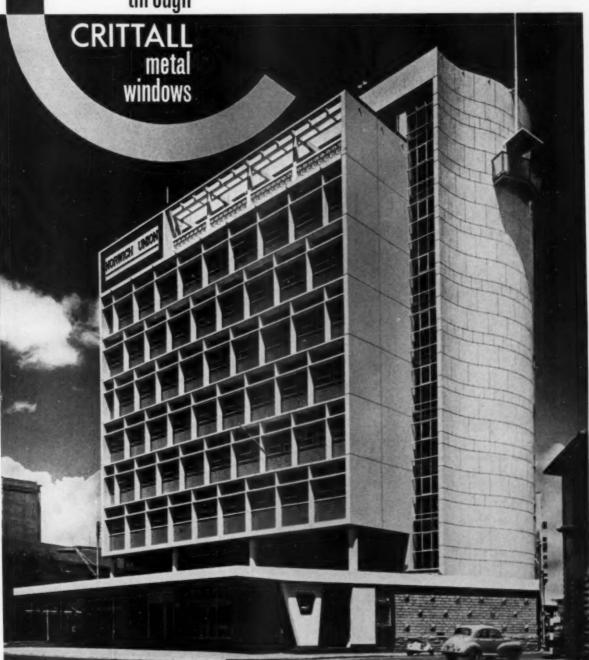
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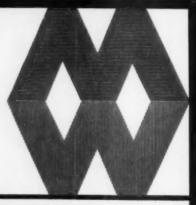


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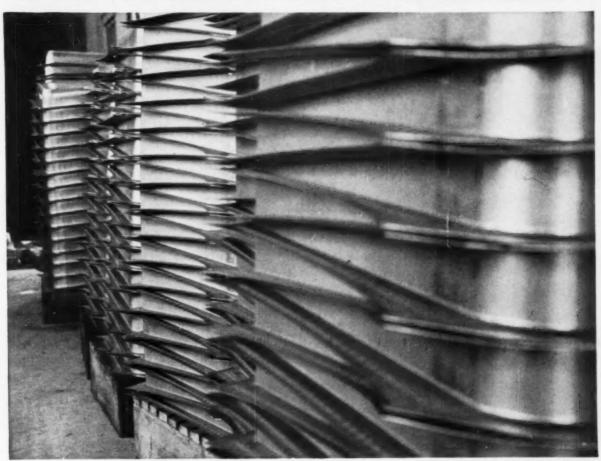
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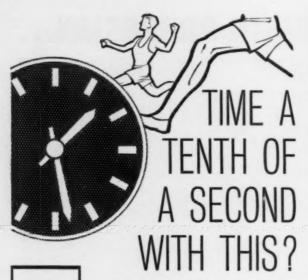
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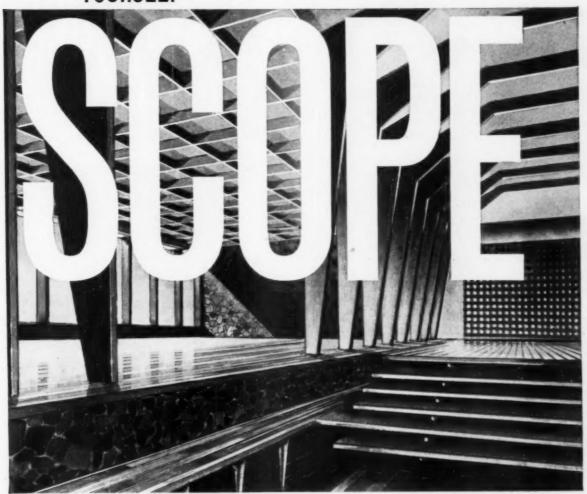


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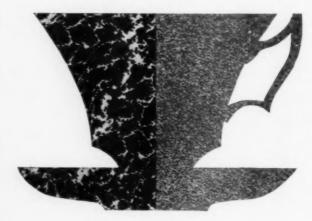


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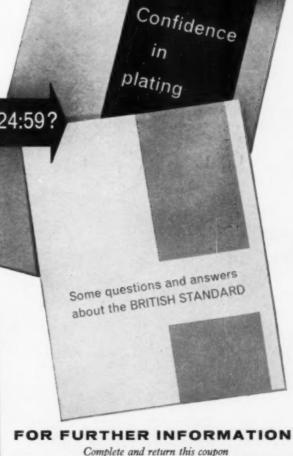
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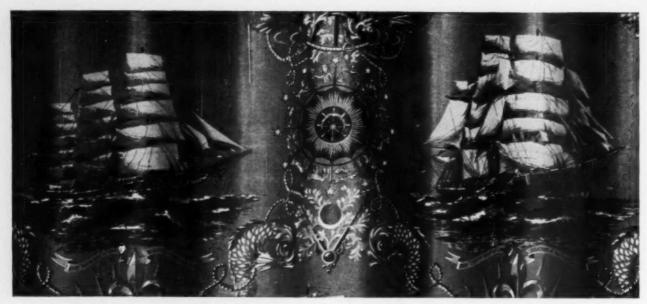


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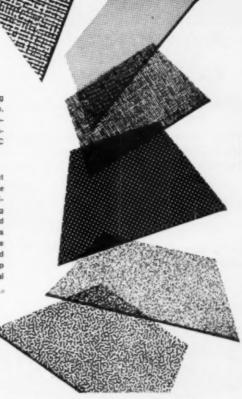
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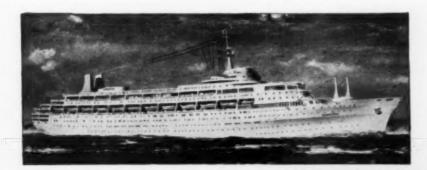
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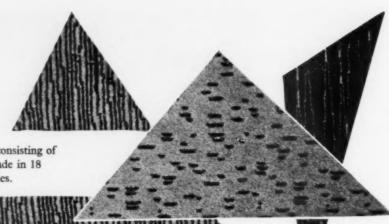
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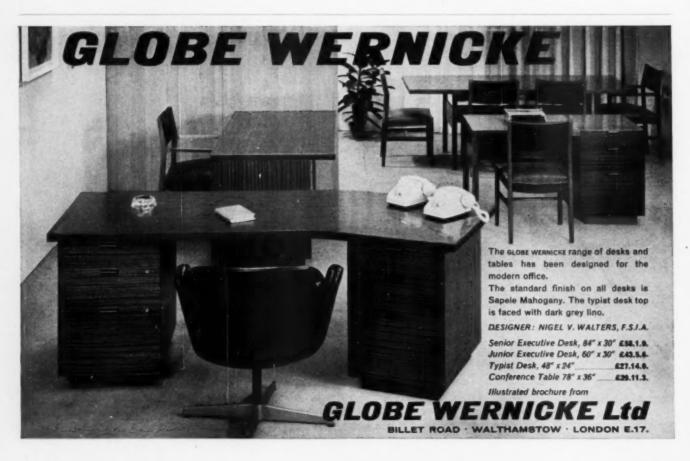
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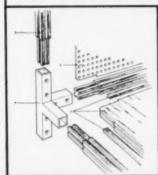
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Design may be obtained from the Business Manager, Design,
28 Haymarket, London SW1.

Orders should be placed not later than the end of the month of issue.



LEICESTER COLLEGE OF ART



One Podolski tells of a dinner party given by S. G. Hibben lit so as to make the food look strange Steaks were whitish grey, celery a rich pink, milk the colour of blood, salads blue at the sky, lemons were the colour of oranges, the coffee had a pale nauseous coffee had a pale nauseous coffee had a pale nauseous coffee tinge, fresh green peus resembled black caviare and the peanuts were a bright scarlet. The guests are said to have lost their appetites and the few that are became violently ill. Reactions opposite to these (and others, such as the right atmosphere for meeting friends and talking) were borne in mind when the wayang was created. We even have a fine Embassy chef to create original dishes RESTAURANT to tempt you back again.

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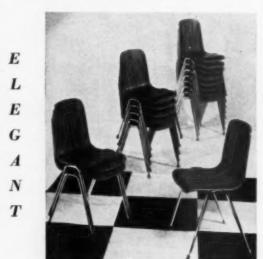
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Situations vacant

AN ART EDITOR for Design magazine is required by the Council of Industrial Design. The qualifications required are a thorough training in modern typography and graphic design, with experience in a publishing house, an advertising agency or on a periodical. The age limits are 28-38, although younger applicants with exceptional experience will be considered. The starting salary will be in the range of £1,225; £1,550, rising to a maximum of £1,820. There is $4\frac{1}{2}$ weeks holiday a year and a pension scheme. Apply for further details and an application form to the Establishment Officer, (quoting No: 162) CoID, 28 Haymarket, sw1.

MINISTRY OF WORKS

London

Assistant Design Officer to produce integrated schemes and prepare coloured perspective sketches for domestic and office furniture and interiors. Must hold MBA, DESARCA, National Design Diploma, or equivalent. Previous experience essential. Salary £1,188-£1,448 p.a.

Design Assistant to carry out work similar to above but less advanced level. Starting pay up to £897 p.a. (depending on experience) rising to £1,043 p.a. These appointments will be for a period of 3 to 5 years. Write to Controller of Supplies, Ministry of Works (S.G.I.A.), Southbridge House, Southwark Bridge Road, London se1.

LITTLEWOODS Mail Order Stores Limited, Design Group. The recently formed and very successful London Design Group of this organisation is to be enlarged. There will be positions of importance for Layout Men/Designers and Draughtsmen/Illustrators of considerable talent. Salaries envisaged are in excess of £1,500 but in practice there will be no limit, since ability is the over-riding factor. These appointments carry with them the usual facilities and amenities expected from an organisation of major importance. Write in confidence to: Management Appointments Officer (Ref: LDG/229/D), Littlewoods Mail Order Stores Ltd, Spinney House, Church St, Liverpool X.

ASSISTANT to Designer in large industrial group. He (or she) must have practical experience of typography and design, and a flair for detail in order to work successfully on first-class print. There will be ample opportunities for developing original ideas, and for seeing designs through to the final stages. Please write giving age, experience and salary bracket, to Box No: 541, Design, 28 Haymarket, London sw1.

AN INTELLIGENT and experienced Draughtsman is required to work on interior design projects. If he has both draughting and organizing potential he can become an assistant. Luncheon vouchers and superannuation scheme in operation. Please write to THM Ltd, 48 Dover St, w1 giving particulars and salary required.

voung progressive designer required to specialise in furniture and interiors of hotels, restaurants, shops, modern homes, etc in Scotland. Salary £800/1,000 per annum. Must be competent in working drawings and all stages of progressing contractors. Apply to

Bluck, Drummond & Associates, Architects and Designers, 24 Sandyford Place, Glasgow, c3.

BUSINESS MANAGER. Design group situated in central London require Business Manager for administration and promotion of Company. Write giving details of experience and present salary to Box No 540, Design 28 Haymarket, London sw1.

EXHIBITION DESIGNER. Creative and thorough, to handle analysis of briefs, design, full working drawings and supervision of jobs at home and abroad to a high standard of detail. Write or telephone, indicating extent of portfolio, to B. A. Spearpoint MSIA, DMA Design Ltd, 16 Carlisle Street, wl. GER 0791.

DESIGNER. A leading Company in the field of office automation is looking for an experienced designer with architectural training. His work will include designing new office and showroom interiors, and exhibitions, together with the detail and administrative work necessary. He must be capable of dealing with contractors and able to administer a heavy schedule of work. This job has considerable prospects for a man of genuine talent, enthusiasm and drive. Please write giving, briefly, details of education, experience and responsibilities of present position to Box K.143, W.P.S., 4 Holborn Circus, Ecl.

YOUNG MAN or woman required as draughtsman/ designer (Intermediate Standard) to work on the design and layout of contemporary bathrooms for large manufacturing Company in Sunbury area. Box No 539, Design, 28 Haymarket, London sw1.

DESIGNER Draughtsman required. Experienced in all types of Electric Light Fittings manufacture, and capable of working with minimum supervision. Good prospects, remuneration and conditions. Permanent and pensionable. Birmingham area. Box No 536, Design, 28 Haymarket, London swl.

DESIGNER wanted (male 25-32) for printed literature. To produce visuals and art work in well known machine tool makers publicity dept. Knowledge of typography, blocks and processes; interest in photography. Non-contributory Pension and Assurance Scheme. Write full details, salary, etc to F. J. Edwards Ltd, 359 Euston Road, London NW1.

YOUNG MAN required for position in busy display section of world famous men's clothing manufacturers. The successful applicant will be one who wishes to make display a career and preference will be given to those having knowledge of dressing and studio work. This is an interesting job affording wide scope. Write giving details of previous experience and age to Advertising Manager, S. Simpson Ltd, 92 Stoke Newington Road, London N16.

DRAUGHTSMAN, with creative ability required to act as assistant to the Art Director who is responsible for the appearance design of the Company's products, literature and all visual matter. The company a leader in its field, manufactures high quality modern lighting fittings with an international reputation. An interest in industrial design and typography is required but no previous experience of lighting fittings is necessary. Further training would be given. Work-

ing conditions with the design and development group, housed in excellent modern offices, are particularly pleasant. Please apply to – Merchant Adventurers Ltd, Feltham, Middx (FEL. 3686).

DESIGNER/TYPOGRAPHER for book publishing, preferably ex CENTRAL, RCA, LEP, with experience in advertising or design group. Position of Art Editor demands collaboration at a high level. Applicants should have a good knowledge of the mechanics of book production and reproduction. State details of education and experience. Box 538, Design, 28 Haymarket, London swl.

Situations wanted

TOP SECRETARY desires full or part-time position with designer. Please telephone Fremantle 9440.

engineer-designer, 38, Administration, Drawing Office, Tooling, Plastics, Product Design, Requires executive position. Box No 537, Design, 28 Haymarket, London sw1.

Commissions and Contracts wanted

2 YOUNG ARTIST Designers NDD seek exciting design problems. Sound Typographical knowledge with agency and Studio experience. Box No 542, Design, 28 Haymarket, London sw1.

YOUNG DESIGNER, shops, interiors, business interiors, exhibitions, furniture, beginning in practice, requires commissions. Would help designer – Box 522.

Printing and Publications

TECHNICAL BULLETINS Advance Information Sheets, Data Sheets, Manuals, Parts Lists, Price Lists, Illustrated Technical Reports, Diagrams. By direct image-litho, dia-litho and photo-litho up to size 19 inch × 13½ inch. Latest Typewriter Faces, Highest Quality, Speedy Service. Ask for Samples. Expedite Multiprint Limited, 51 Tothill Street, Westminster sw1. ABBEY 3213/4.

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PROGRESSIVE Printing Company, desirous of creating good impressions, is looking for print conscious industrial firms. Modern plant and enthusiastic operatives, producing quality work, are at your service. Contact – Sales Director, Witley Press Limited, Hunstanton, Norfolk. Telephone 89.

Prototypes and model making

FOR EXHIBITION STANDS and animated light displays, architectural and visual planning models, prototype design and development – consult: John Evans and Associates, 17 Woodford Street, Northampton. Northampton 1274.

SHOPPRONTS and interiors. Perspex sign makers. Specialist metal furniture and fittings, upholstery. Ladies hairdressing salon furniture. Cornish Shopfitting Limited, PUTNEY 0982.

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INTENDING EXHIBITORS at European Fairs should contact Davies Turner & Co Ltd, 4 Lower Belgrave Street, London swl, stoane 3455, for details of direct road service.

Miscellaneous

London County Council

SAINT MARTIN'S SCHOOL OF ART

This school has been established over one hundred years. 109 Charing Cross Road, London wc2 (Telephone: Gerrard 0058/59). Principal: E. J. Morss, RBA, ROI, ARCA. Advertising Design and Illustration Drawing and Painting, Dress Design and

Fashion Modelling, and Carving; Ministry of Education Art Examinations.

FOR EXPERT ADVICE on: Packaging designs, brochures, prototype models, exhibition stand and display designs contact Peter Skinner Limited, Poultry Arcade, Nottingham. Telephone 50505.

engineering company specializing in the manufacture of aluminium alloy framed window units etc, would be interested to receive enquiries for further work of this nature. Hardall Ltd, Wingate Road, Luton.

THE DESIGN of an exhibition stand is all important but the support of first rate administration is essential. Rapier Design Limited designs well and ensures its clients sound sleep by controlling every phase of production to a strict schedule. Rapier Design Limited. Telephone Chancery 6272.

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THE COTTON BOARD. Travel Scholarships for Textile Designers Awards to a total value of £2,000 p.a. are available to established designers working for the British Cotton Industry. Closing date for applications – October 31, 1961. Full details and application forms from The Education Officer, The Cotton Board, Royal Exchange, Manchester 2.

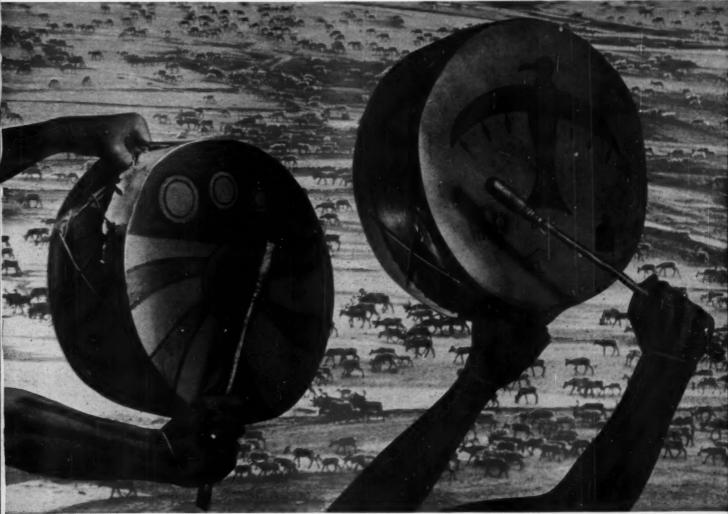
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PR178H

Under the midnight sun of Canada's far North-West, a line of barges creeps into Yellowknife—a gold-mining settlement on the desolate shore of a great lake. Their load—cyanide in drums—is prosaic, perhaps; but it has completed an adventurous journey that started 10,000 miles away at an I.C.I. factory in England: by sea across the Atlantic and through the Panama Canal to Canada's Pacific coast; down-river by barge, overland again for many a rugged mile, down-river once more to the waters of the lake itself.

Such odysseys are not uncommon for I.C.I. chemicals,

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